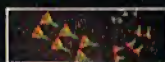


GYRUSS PATTERNS



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Dec. 1983 \$2.95
WPS 38140

JoyStik[®]

HOW TO WIN AT HOME, COMPUTER & ARCADE GAMES

**MASTERING
BLASTER'S
30 SCREENS**

**ELECTRONIC
ARTS: A NEW
SOFTWARE
BREED**

**CONQUERING
CRYSTAL
CASTLES**



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JoyStik¹
How to Win at Video Games
December 1983, Volume 2, No. 3

Publisher

Louis Weber

Associate Publisher

Estelle Weber

Assistant to the Publisher

Betsy Baird

Assistant Publications Director

Mona Syring

Editor in Chief

Matthew White

Managing Editor

Doug Mahugh

Editor

Rita C. Vano

Assistant Editor

Julie Layton

Acquisitions Editor

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David Darian

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Illustrators

Hilary Barta

Joni Watanabe

Photographers

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Vice President, Advertising

Jay L. Butler

Marketing Director

Dan Blau

Circulation Manager

Edward Geraghty

Advertising Office

225 W. 34th St., Suite 806

New York, NY 10122

(212) 564-7007

Editorial and Subscription Offices

3841 W. Oakton Street

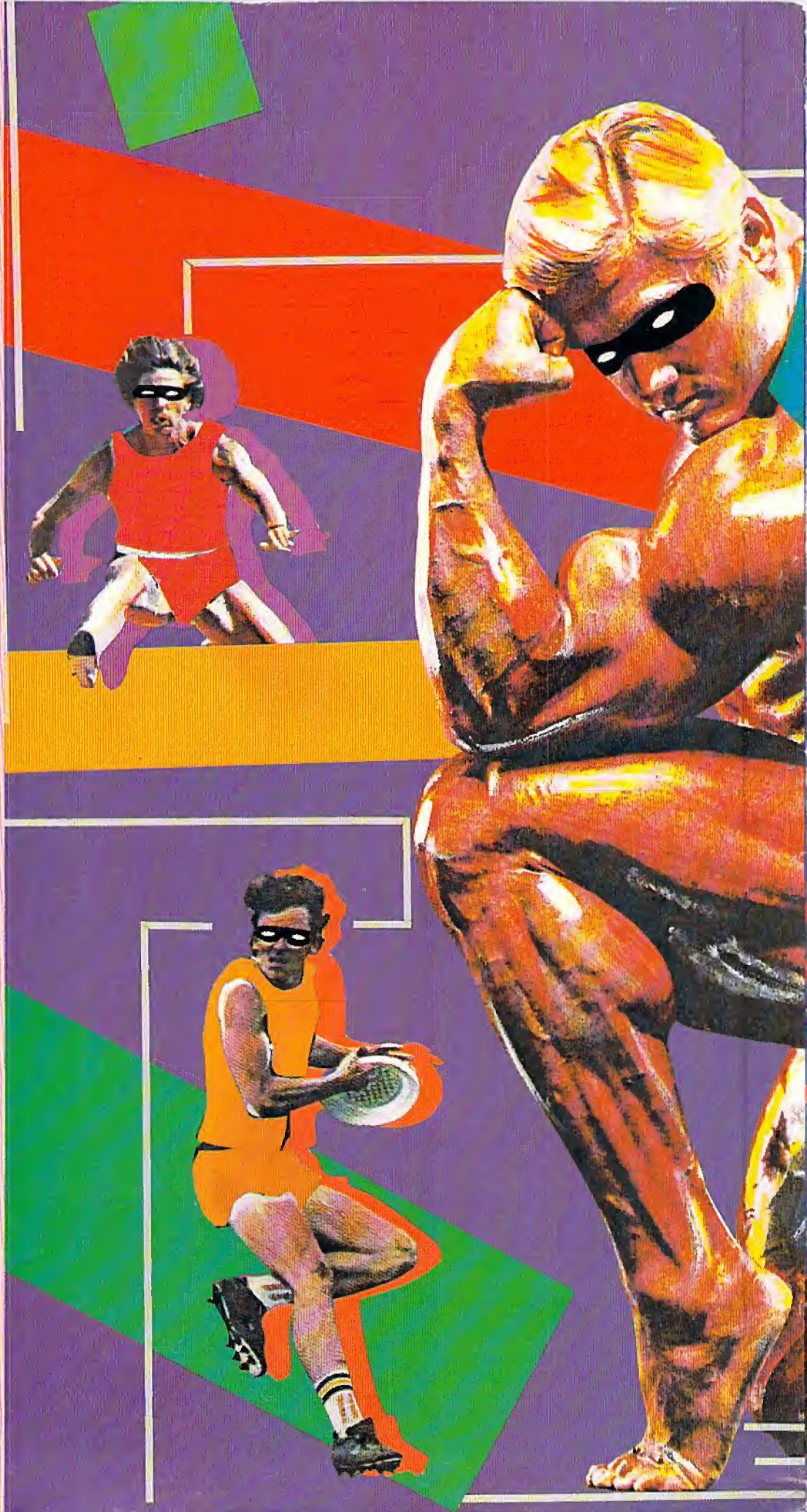
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Editor's Message

In this issue, you'll find strategy pieces written by three well-known players: Eric Ginner, Tad Perry, and Ben Gold. These three young men are part of a nationwide clique that includes the top coin-op players in the U.S. It may come as a surprise to you (as it did to me) to learn that such a group exists. These players talk to one another on almost a daily basis, in spite of the fact that they live all around the country.

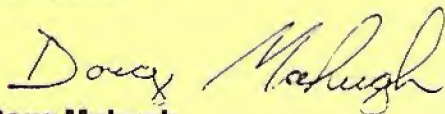
Eric Ginner, who has been contributing his strategies and observations to *JoyStik* since January of this year, is perhaps the best known of the group. He first earned national recognition in the Atari World Championships in 1981, and since then he has won numerous contests and set many world records.

One of the world records Eric Ginner has held was the Millipede record, at 1,506,864 points. Last February, that record was broken, or rather shattered, by Ben Gold, who scored over four million points. Ben was also one of the featured players in the recent tour of the U.S. Olympic Video Game Team, and he has appeared in two nationally televised contests, both of which he won.

Bill Mitchell and Steve Harris are two other players that were featured on the Olympic Team. Bill is the premier Donkey Kong and Donkey Kong, Jr. player in the country, and as of this writing he also holds the world record on Ms. Pac-Man. Steve is a master of many "cute" games (e.g., Bubbles, Popeye and Congo Bongo), and he holds the current world record on Dragon's Lair.

Tad Perry has been contributing to *JoyStik* since July, and he wrote the Crystal Castles article in this issue. He has scored 25,000,000 on Food Fight (and wrote the *JoyStik* Food Fight strategy), and is close to the Crystal Castles and Ms. Pac-Man world records, with scores of 800,000 and 400,000 on those two games.

Being new to magazines and old to games, I have always turned to these players when we need a strategy article. Some of the other video magazines rely on freelance writers with an interest in games, but here at *JoyStik* we think it makes more sense to have players write the strategies. After all, Ben Gold may never write a *War And Peace*, but we know for sure that Tolstoy never broke 4 million on Millipede.



Doug Mahugh
Managing Editor



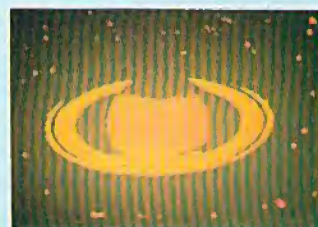
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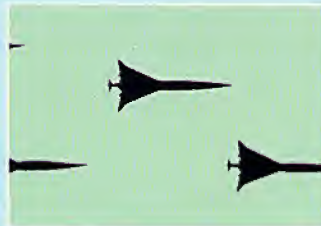
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Which player is making a tactical error?

You've fought BATTLEZONE™ tanks, flying saucers and fighters in the arcade. Now it's time to protect the home front. Because Atari's BATTLEZONE is now prepared to wage war right in your own living room.

The player on the right will most likely fail in his mission. He should've hit the fighter first. Even though it is worth 3,000 points less than the flying saucer, it is far more dangerous. It can destroy. The saucer can't.

There's another way you can rack up extra points, and you don't even have to fire a shot. By moving your tank to one side, you can often lure one enemy into another's line of fire.

Surviving BATTLEZONE is no easy mission. If you're up for it, climb into your troop transport and make tracks to the nearest store that stocks Atari games.

Only Atari makes BATTLEZONE for the ATARI® 2600™ Game, Sears Video Arcade systems, and a version exclusively for the ATARI 5200™ SuperSystem.

ATARI



LETTERS

THE MONSTER MYTH

When I play Pac-Man and Ms. Pac-Man, every once in a while Pac-Man will pass through the monsters without sudden death. I've heard people say that when Pac-Man's mouth is open you can pass through; also I heard that it can happen when the monsters are looking the other way. Is this true?

Kevin Flynn
Roseville, MI

No. It is possible to pass through the monsters in either Pac-Man or Ms. Pac-Man, but it has nothing to do with Pac-Man's mouth or eyes—it's just a bug in the Pac-Man program. We're not sure who started that story about passing through when the monsters aren't looking, but it certainly has become a common misconception.

TEMPEST TANTRUMS

First of all, I would like to say that I read JoyStik® and think it is definitely the best video game magazine that I have seen, and believe me, I've seen lots! I have been playing Tempest for about two years now and I know the game pretty well. My high score is 985,154—miles away from the world record of 5,829,783—and I am stymied! Firstly, this record holder I presume completed level 81 for an 898,000 point bonus as I did in my game. Secondly, I also presume that the game was not set on its hardest level when he registered this record. I worked out each green level to give about 9,000 to 11,000

points. This means that the record holder would have had to complete a staggering 600 levels on one quarter! This is equivalent to cycling through all 16 shapes about 37 times! Did the record holder do this, or is there something I don't know about Tempest? If he did complete 600 levels, my hat's off to him!

Gil Winkler
Toronto, CA

P.S. Those Tempest combinations in your Sept. '83 issue really work! Thank you.

You're right in your calculations, Gil—the world record holder must have completed 600 levels in a single game. But don't forget that he could have had many more turns in that one game than you might expect. Here's how you can use the Tempest combinations described in the Sept. '83 Tricks of the Trade to do it: Make your game end in 05, so that you can play the attract mode. Once in the attract mode, don't turn the control knob and wait for a spiked level. Then carefully shoot spikes until your score ends in 48; this will give you 255 extra turns. With all of those turns, you may be able to get through 600 levels in one game yourself.

XEVIOUS FLAGS

I just started playing Xevious, and I have scored 100,000 points on it. When a friend asked me if I had gotten any flags that give you free ships, I had no idea what he was talking about. He told me that he

knows where ten flags are before the second mother ship. My question is: are there any flags that can give you free ships? how many? where are they?

P.B. George
Mesa, AZ

Yes, there are flags hidden in the game of Xevious that will award you an extra turn, but as far as we know there are only four, not ten. The flags are not visible until you hit them, and they do not glow red in your bombing target, so you must know exactly where they

are located. One of the flags is shown above; the exact location of all four can be found in How to Win Arcade Video Games, by the Editors of JoyStik®. You can pick this book up at your local bookstore or order it directly from us for \$2.95 plus 75 cents postage and handling.

WILL IT NEVER END?

In your Sept. '83 issue, according to Randy Tufts he has achieved a perfect score on Pac-Man 17 times. And according to JoyStik®, he sent many photos of his perfect

(Continued on page 6)



One of Xevious' four hidden flags—not visible until you hit them.

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*DIG DUG is created and designed by Namco Ltd., manufactured under license by Atari, Inc. Trademark and © Namco 1982.



Which is the best way to inflate your score?

Better find out. We've done work on DIG DUG so well, it plays just like it does in the arcade. So don't dig yourself a hole. Like the player on the left. Sure he'll score points for blowing up the Fygar™ in a vertical path. But blow up the Fygar in a horizontal path, like the player on the right, and score twice as many points. A landslide.

You can dig up even more points by uncovering a bonus veggie. But you get only one on each level. All you have to do is drop two boulders and you'll see it. Buried treasure disguised as a veggie.

Only Atari makes DIG DUG for the ATARI® 2600™ Game, Sears Video Arcade® systems, and versions exclusively for the ATARI 5200™ Super-System and all ATARI Home Computers.

So get to your nearest store and dig into your pockets. For DIG DUG.

Here comes Dig Dug™ from Atari®.



 A Warner Communications Company

(Continued from page 4)

games. A perfect score after the sixth key (the last time the ghosts change) is 340,600, but the photo enclosed with the letter shows a score of 340,330 with seven dots left on the screen. After completing this screen he would have a score of 340,400. Please explain.

Joe Marks
Shelby, N.C.

We're sorry for the discrepancy, Joe. 340,400 is the correct score for a perfect game after the sixth key, so the picture was right. The problem is in the accompanying letter; it says that the score should be 340,600, which is wrong. Thanks for pointing out the error.

RAM vs. ROM

I have a couple of questions concerning the January '83 issue. First off, I enjoyed the article on the Supercharger. You stated that, without the Supercharger, you get 128 bytes of Random Access Memory, whereas the Supercharger gives you 6,272.

A friend of mine told me that he has a book that states plainly that one K of memory equals 1,024 bytes. If this is correct, then the Atari 2600 has over 4,000 bytes; however, you said that it has 128 bytes. So who's right?

Darryl Brundage
Houston, TX

All of the numbers are right, Darryl. The source of your confusion is the difference between RAM (Random Access Memory) and ROM

(Read-Only Memory). The Atari VCS has 4K (or 4,096 bytes) of ROM, but it has only 128 bytes of RAM. The SuperCharger increases the available RAM to 6,272 bytes.

SPELLING

Why is the name of your magazine spelled wrong? In my Atari owner's manual, it is spelled J-O-Y-S-T-I-C-K. Is this a typo? Who's right and who's wrong?

Mike Wildridge
Lawrenceburg, IN

Yes, Mike, not only does Atari spell JoyStik® wrong, but many other sources—even Webster's Dictionary—also use the incorrect spelling. We're not sure what the problem is, but we can assure you that, in our book, J-O-Y-S-T-I-K is the proper spelling.

THE ELEVATOR SOLUTION

In your Letters page in the July issue, you ask for a way around the problem of the third elevator screens. Although here in England the Donkey Kong machines are the Japanese versions, which means the sequence of screens is different (ramps-pies-elevators-rivets for every level) I get past the third elevator screen by doing the following: simply stand above the down elevator and then gently push the joystick once to the right so that Mario is facing the ladder and is just off the elevator top. Wait for a springese to bounce just to the left of Mario (even going through him slightly) and then rush up the ladder. I have found this method works after a

little practice and has led me to scores of 300,000.

David Goodson
Uxbridge, England

Thanks for the tip, David.



Take a wild shot in Galaga—you might fire (at) the Boss.

GET BACK AT THE BOSS

This is a rather old trick in our local arcades, but for those who don't know it, here it is. In Galaga, after the Boss Galaga (the one you have to shoot twice)

drops down and releases his tractor beam and you get caught in it, most players watch as their ship helplessly tumbles into the Boss Galaga's clutches. But you're not really helpless—you lose your maneuverability, but not your firepower. By tapping the fire button, your ship will release wild shots all over the screen. If by some stroke of luck you destroy the Boss Galaga, the tractor beam will disappear and your ship returns to the bottom and gameplay returns to normal. If the Boss Galaga gets away with your ship, remember what you learned in David Small's article "Doubling Your Galaga Firepower" in the April 1983 issue of JoyStik.

Brian Tokuyoshi
(no address given)

Thanks for the trick, Brian. It's fun to do, although it is probably best to use your doubleship instead of shooting it.



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Which player is really firing up his score?

Think quick. The new home version of Moon Patrol looks so much like the arcade, it could fool the man in the moon. So don't find yourself in a crater. Like the player on the right, he'll get only 100 points for using his Moon Buggy to shoot down a Moon Strafer. While the player on the left will get twice as many points for shooting down a Crater Maker. A victory as great as the lunar landing.

Your score can wax even higher. You'll get 80 points every time your Moon Buggy jumps over a rock. But you'll get 100 points when you blow up a rock.

Only Atari makes Moon Patrol for the ATARI® 2600™ Game, Sears Video Arcade† systems, and a version exclusively for the ATARI 5200™ SuperSystem.

So get on your lunar module and scan your local moonscape for Moon Patrol.

Here comes Moon Patrol from Atari.



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NEW WAVES

VIDDYING VIDION

Arcade and home game players no longer have to feel they are unheard voices in the video wilderness—Vidion, the first international association of video game players, has been established. Under the chairmanship of Walt Day, who has been nationally recognized for his efforts to promote video games as wholesome recreation, Vidion works to communicate the interests of game players to those individuals and groups having an effect on the industry. Membership fees are \$10 a year for individuals and \$15 for families. Members receive newsletters and the opportunity to register their unwanted cartridges in a "Game Exchange" listing which is published monthly. For more information, write to David Rice, 1440 N Street, N.W., Suite 601, Wash., D.C. 20005.



The Triga Elite.

TRY A TRIGA

Yet another joystick has surfaced in video game-land. Electra Concepts

Corp. recently introduced the Triga Elite, which can be used with a variety of home systems and computers manufactured by Atari, Commodore, Coleco and Sears. The Triga Elite Joystick has adjustable handle pivot sensitivity with settings ranging from near zero to a ten degree response, a second action fire button and a rapid fire bar. Suggested retail price is \$23.95.

MYLSTAR'S MILESTONE

The laser disk is shedding renewed life on the arcade video game industry by providing realistic action, graphics and sound effects. Many manufacturers, responding to the popularity of Cinematronics' Dragon's Lair, the first laser disk game available in the U.S., are producing laser disk driven games of their own. Mylstar Electronics, formerly D. Gottlieb and Co., recently introduced M.A.C.H. 3. This game not only offers the advantages of laser technology, but also a choice of two games, allowing the player to pilot either a bomber or a fighter plane.

WHERE OH WHERE FOR INEXPENSIVE SOFTWARE?

Responding to the increase in home computer sales, a home video game company has been formed in downstate Illinois. JW Software manufactures inexpensive (\$11.95) cassette games for Texas Instruments 99/4A home computer. No costly accessories are needed to run the

games—all you need is a cassette player and, of course, the computer. For a free catalog, write to JW Software, 814 W. Main St., Urbana, IL 61801.

ATARI GETS THE JUMP ON THE OLYMPICS

The arcade and home video games of Atari, Inc. have been named official products of the 1984 Olympic Games. As a major sponsor of the U.S. Olympic team, Atari will be allowed to set up video game arcades on location for exclusive use by athletes and the news media.

WINDO-WIZARDRY: MORE THAN A SQUARE DEAL

Dragons, knights and fair maidens appear on your Apple II computer screen, changing gradually from scene to scene. It's not magic, it's Sir-Tech Software Windo-Wizardry. This home game software series uses overlapping windows, or rectangles containing graphics and text, on a background of the usual flat matrix of dots. The windows fade and reappear according to their priority in a scene, allowing the background to remain intact as the images make an easy transition from one scene to the next. There are three games in the series: Wizardry—Proving Grounds of the Mad Overlord, Knight of Diamonds, and the recently introduced Legacy of Llylgamyn.

SEGA SOLD

The last time we heard from Sega Enterprises, the coin-op manufacturer was reporting on the overseas popularity of its laser disk game, Astron Belt. Since then, the Gulf-Western Corp. subsidiary has been purchased by Chicago-based Bally Midway for an undisclosed price. Plans to distribute Astron Belt to American arcades remain unchanged.

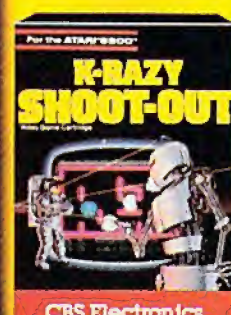
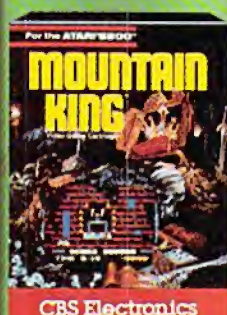
FROM THE CHAMP CAMP

Championship Electronics has expanded its team of home video game accessories by introducing three new products. The Champ Adaptor No. 1 has a suggested retail price of \$15.95, and will convert any Atari 2600 compatible joystick into a Colecovision controller for games that don't require dual action buttons. The Champ Adaptor No. 2 (suggested retail price: \$4.95) is cordless, and allows owners of the TI-99/4A to use any Atari compatible joystick. The Mini Champ Joystick is designed for the small-handed player, and it features three firing buttons and a retractable cord.



The Mini Champ.

Introducing five ways to make your Atari® 5200™ more exciting.



CBS Electronics is now the source of a big variety of exciting games never before available on the Atari® 5200™. Now you can really plug into the excitement five different ways... each one a thrilling test of your skill and concentration.

There's popular arcade games like Bally/Midway's GORF™—where you must muster all your strength to defend against flying Gorfs, deadly Droids, Kamikaze Invaders, Laser Attackers and Neutronium Ships. WIZARD OF WOR™—you must outwit and outshoot the sinister Wizard in the dreaded dungeons of Wor. And BLUEPRINT™—which lets you try to prove that chivalry is not dead. Only you have the blueprint for the machine that can stop mean Ollie Ogre and save fair Daisy Damsel.

Plus there's K-RAZY SHOOT-OUT®—Electronic Games Magazine's Computer Game of the Year. It's an incredibly fast-paced test of your marksmanship against alien Droids. And there's MOUNTAIN KING™—an ever-exciting journey through diamond-laden caverns in search of the elusive Flame Spirit...the mystical key that unlocks the Temple Chamber which holds the Golden Crown.

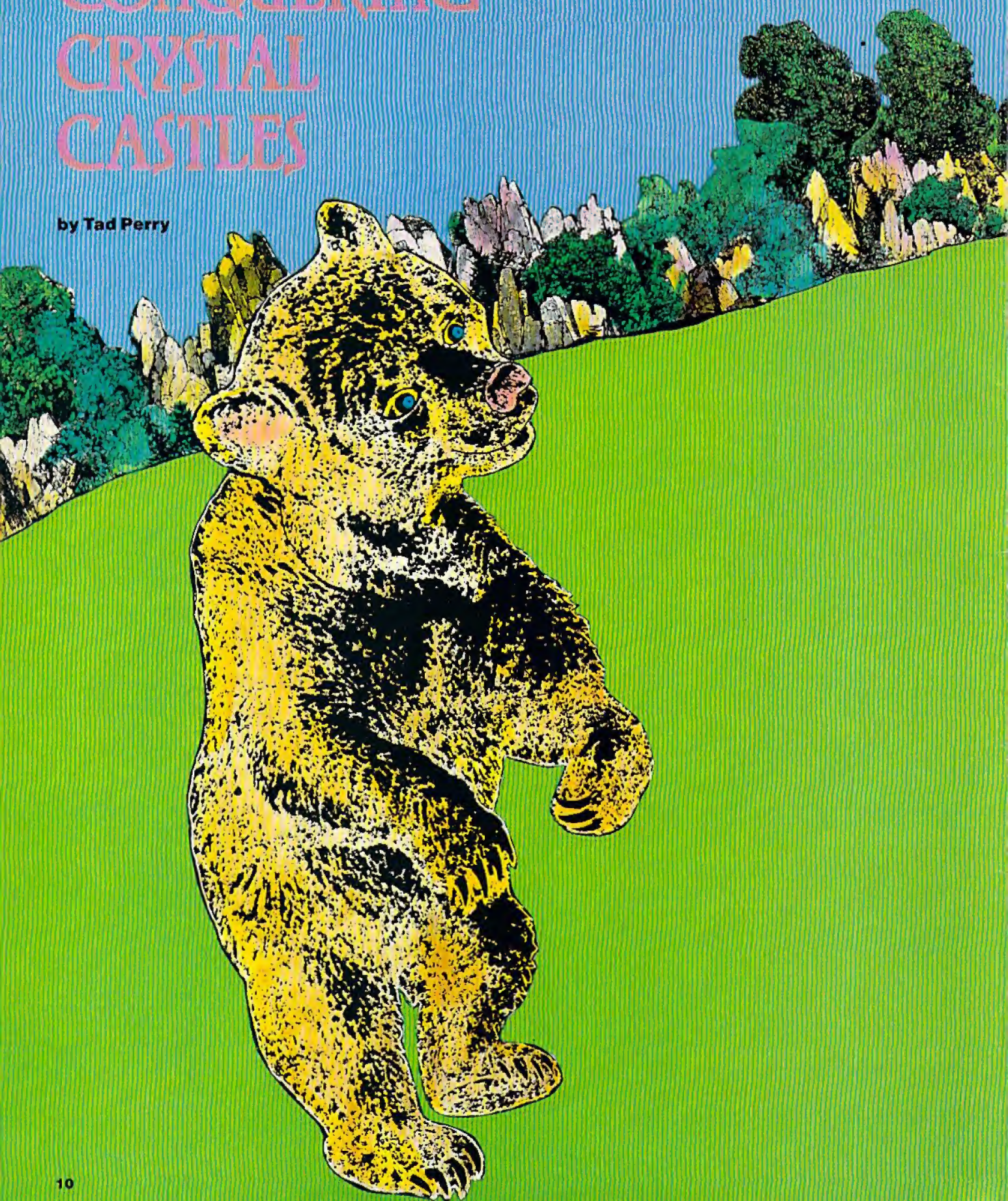
It's five great ways to add to your Atari 5200 video game selection. So check out the video games from CBS Electronics. And discover how much more exciting your Atari 5200 just became.

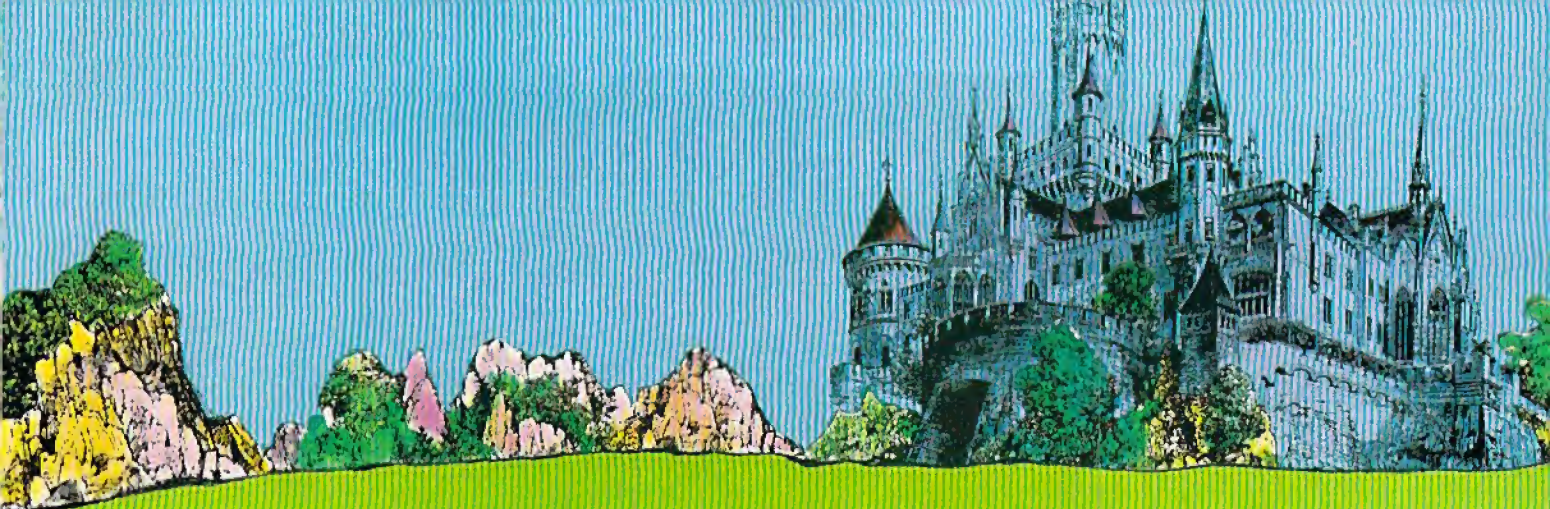
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CBS Electronics
Where the excitement
never ends.

CONQUERING CRYSTAL CASTLES

by Tad Perry





Bentley Bear lives in a world of three-dimensional perspective similar to that found in Q*bert or Zaxxon, and he's the main character in one of Atari's latest and most inventive games. Bentley's duty is to clear away all of the gems that cover the surface of each of the mazes, using elevators and ramps to cross between higher and lower portions of the mazes. While picking up the gems, Bentley must avoid Gem Eaters, Nasty Trees, Very Nasty Balls, and a wicked witch.

One of Bentley's most powerful tools is the magical hat. The hat, worth 500 points, appears on every maze in the game except the first and the last. None of the other enemies can pass through the hat if trapped behind it and Bentley can wear the hat by crossing over it. During the time that Bentley is wearing the hat, he is invincible and can pass through any of the enemies without being harmed. After a time, however, the magic of the hat wears off and it disappears from Bentley's head, leaving him vulnerable to attack once again. On the earlier levels of the game, the hat will sit in one place waiting for Bentley to come along and pick it up. On intermediate levels the hat will bounce in place. On the later levels

the hat will actually bounce randomly around the maze. When the hat is bouncing up, it is possible for Bentley to walk under the hat and not end up wearing it. One way to get around this rare but annoying occurrence is to jump for the hat. If you jump Bentley over the hat, he will never miss it.

Something to be concerned about in the game is the witch's caldron. If Bentley runs into the caldron, he's dead meat and you'll lose a turn. The ways to avoid the caldron are to jump over it or wear the hat and pass through it. One useful thing to know about the caldron is that none of the other enemies can pass through it to get to Bentley if he's on the other side, although they can go around it if the path is wide enough.

The witch to whom the caldron belongs is Berthilda. If Bentley can nail Berthilda while wearing the hat, you'll get 3000 points. Any collisions with the witch while not wearing the hat are fatal. The witch's movements tend to be repetitive. If she's going back and forth at the top of a wall she'll continue going back and forth. In dealing with the witch, your best course of action is to assume that she will repeat the last thing she did, but always keep in mind that she could

do something new. The witch is incapable of picking up any gems.

In league with the witch are two enemies that make this game incredibly frustrating at times. The first of these enemies is the Nasty Tree. The Nasty Tree will always attempt to take the shortest path to Bentley. On higher levels the tree is lightning fast, but its weakness lies in the fact that it always tries to take a straight path to Bentley. Trap it behind a wall or in a corner and it can do you no harm. When trapped behind a wall the tree will mimic exactly any back and forth motions that Bentley makes on the other side. The tree will go no farther to either the left or right than Bentley does, and will stop immediately when Bentley stops.

The second type of mean enemy is not named in the game, but I'll take the honor on myself and nickname them Very Nasty Balls. These are small brown balls with faces on them. Very Nasty Balls behave exactly like Nasty Trees with one exception: in the previous example, where Bentley was moving on the opposite side of a wall, a Very Nasty Ball would continue rolling in the direction Bentley is moving even after Bentley has stopped. If after rolling a bit the ball hasn't found a way around



the wall it will roll back the other way, and after rolling back and forth a few times it will finally come to rest directly opposite Bentley just where a tree would. Something useful to know about Nasty Trees is that if Bentley jumps over one it will be stunned for a moment. Both Nasty Trees and Very Nasty Balls pick up any of the gems that they cross over.

Since Bentley is a bear, he enjoys honey, and most mazes include a honey pot which he can pick up for 1000 points. Not long after the beginning of a maze that includes a honey pot, a swarm of bees will come down to protect the honey. The swarm will leave after a short time only to return again much more aggravated. While the swarm is on the maze it will act like a Nasty Tree in the way that it tracks Bentley down. Also, after the swarm has landed about five times on the maze where the honey was, it will come down from the top of the screen directly over Bentley's head.

Even on mazes that do not have a honey pot the swarm will appear if Bentley is taking an excessively long time clearing the gems from the maze. On the mazes that do include a honey pot, pick it up as soon as possible because this will delay the first appearance of the swarm for a considerable length of time.

Gem Eaters are Bentley Bear's main enemy. Not so much because they try to track Bentley down, which they don't do unless he's very close, but because there are so many of them that they tend to get in the way. Gem Eaters are concerned with eating gems and that's about it. During the moment that they stop to gulp up a gem Bentley can eliminate them for 500 points apiece. When a maze is close to being completed and there aren't very many gems left, Gem Eaters will start becoming more and more frenzied. Irritated by hunger, they will calm down and begin moving slowly again only after

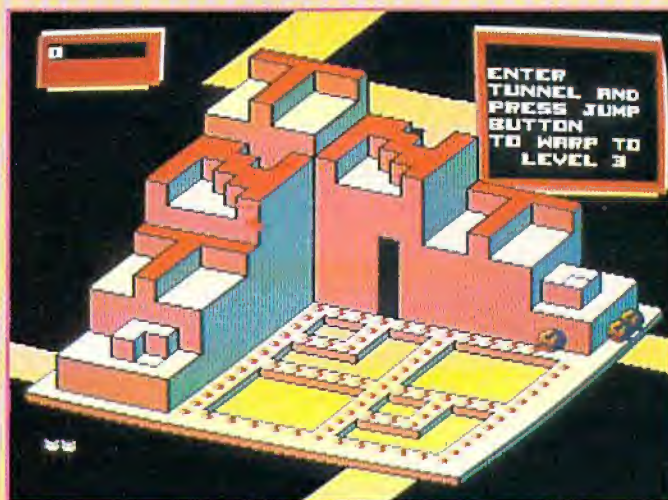
they've eaten some gems or Bentley has jumped over them (which will stun them and cause them to slow down). Gem Eaters move along the edges of the maze and the obstacles and formations within the maze. They also tend to follow these edges in a clockwise fashion.

Through knowing how the enemies are reacting to Bentley the basic strategy that should be used becomes clear. Although not every enemy appears on every maze, the absence of any one of the enemies listed will only make the clearing of that maze easier and won't really change the basic strategy too much.

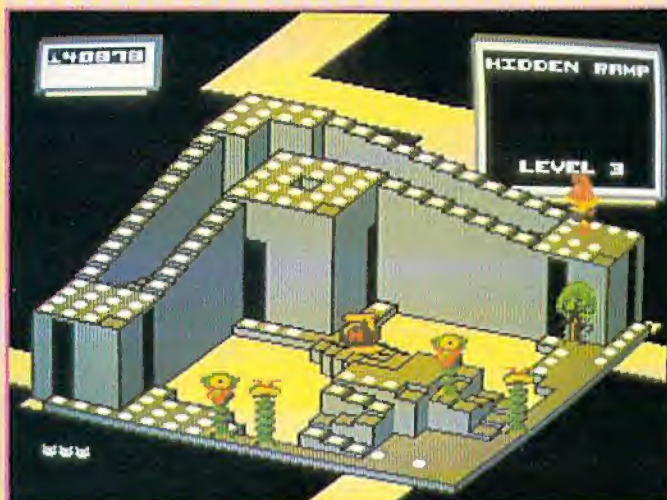
At the beginning of every maze Bentley is positioned at the forward edge of the maze. Within moments the other elements of the game, such as the honey pot, the hat and the enemies, will drop down from the air into their starting positions on the maze. The starting position for any

enemy on any particular maze remains constant and you should pay attention to where the enemies begin and in what order they line up. All of the enemies except the witch will begin the maze along either the forward or right edge of the maze. Usually most of the enemies will start in a line from the right side of the maze and you must be careful not to be under them when they land.

There is a neat thing you can do when the Gem Eaters, who can't go anywhere until they eat the gems, are at the forward end of the line. Before Bentley and the enemies begin the board, position Bentley next to where the first Gem Eater will land. Move the trackball into the first Gem Eater and continue on through the line, getting rid of your main concern—the Gem Eaters—immediately. On higher levels you must move in and out quickly since you can only expect to get a few of these enemies at the start of the board. In fact,



FIRST WARP: Hide in the bottom left corner as shown to warp to level 3.



SECOND WARP: Run to the bottom of the hidden ramp and press the jump button before the hat disappears.



after the maze is well under way you should avoid Gem Eaters as you would other enemies.

The basic strategy for Crystal Castles is just a matter of ordering all the things that you now know. First, if possible, you should slurp up some Gem Eaters as described previously. Second, you should run and grab the honey pot to delay the appearance of the swarm. Third, you should concentrate on trapping the Nasty Tree when there is one on the screen. Next, you should clear any open areas of gems. As mentioned previously the Gem Eaters tend to move along the edges of the maze, and so you're going to be forced to get the gems left in the open before the swarm appears and makes the gem-getting difficult. Finally, learn the hardest part of each maze and use the hat to clear it either first or last. Try to make sure that you eat the last gem before the enemies do, because then you'll be

awarded a bonus.

This basic strategy will work through level 8. On level 9 your first priority becomes getting the hat. If you don't get the hat immediately it will turn into a Very Nasty Ball.

Levels 1 through 9 have four mazes apiece. Level 10 has only one, and if you clear it your game is over. On this level, there isn't a hat, and there are so few Gem Eaters that your first priority becomes getting the honey pot. When the game is ended by completion of level 10, the player is given a bonus based on the amount of time taken to play the game from start to finish. This bonus tends to be between 100 to 20,000 points. The player will also receive a 10,000-point bonus for each remaining turn.

There are three secret warps in Crystal Castles. When a secret warp is made Bentley Bear will go to the next odd-numbered level. Therefore, the first

secret warp takes Bentley from level 1 to 3, the second takes him from level 3 to 5, and so on. For the levels you skip using the secret warp you'll receive 70,000 points. After the first warp, your score will be 140,000 points exactly. The score that you had before warping will not be added to the points awarded for making the warp.

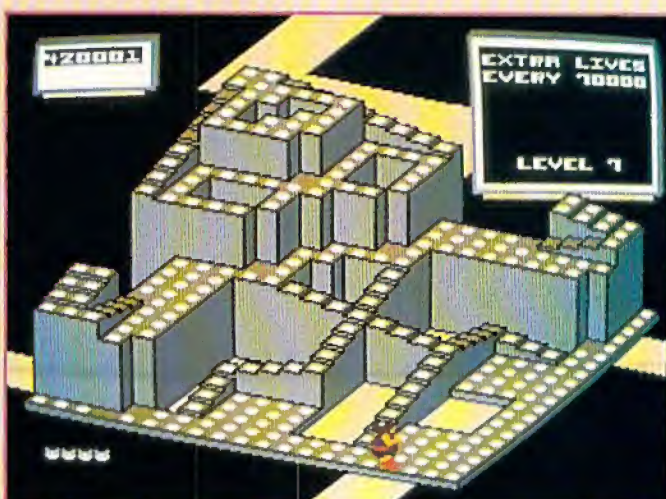
To make the first warp, go to the back left corner of maze 1 level 1 and press jump. For the second warp, go to the bottom of the hidden staircase on maze 1 level 3 while wearing the hat and press jump. The back right elevator should be coming down when you pick up the hat. To warp the third time, go to the back left corner of maze 3 level 5 and press jump.

After you properly execute these three warps, your score should be 420,000 points. To get the highest possible score you have to play all of level 7 and the first board of level 8. Com-

pleting the first maze of any of the first eight levels entitles you to begin your next game at that level. You are not allowed to begin your game on level 9 or 10. Once you've gained level 8 in this way you should play several games starting at this level. Even with the secret warps it's futile to expect a very high score when beginning the game from level 1. Enter the tunnel and press the jump button. This takes you up to level 8 where you can begin playing the game. When in the tunnel, roll the trackball to the left and towards you while pressing the jump button. This will take you out of the tunnel, and you'll receive extra points for the gems along the left wall of the first maze which will be added to the 490,000 points you earn for the jump. When you start from level 8, you only have nine mazes to learn before the end of the game. It won't take you long to learn these mazes, and soon you'll be engraving your initials atop the first maze.



THIRD WARP: Jump at the back left corner on the third maze of level 5.



Three successful warps will put you on level 7 with 420,001 points and five extra turns.

THE UNDERGROUND

Mr. Do! is one of the few successful conversion games. (Conversion games are kits that can turn one type of arcade game into another simply by replacing some of the circuit boards and other components.) Conversion games are often crude and simple, but, despite its crude graphics and sounds, Mr. Do! is a fun game with interesting game play. Mr. Do! is best thought of as a sequel to Dig Dug. Although the two games are not related in

any way, they look alike and Mr. Do! expands on the simple game play of Dig Dug. Mr. Do! requires a completely different strategy than the pattern approach used by most Dig Dug players. Many players overlook the possible strategies because Mr. Do! looks like a pattern game and they assume that it should be played like a pattern game.

ELEMENTS

Mr. Do

You control Mr. Do, a little

guy dressed in a clown suit. His goal is to complete a screen in one of several ways described below. His only weapon is a power ball which kills pursuing monsters. The ball bounces around the pathways until it hits something or it returns to Mr. Do. After it kills a monster, you must wait for it to return before you can shoot it again. It often takes more than a few seconds for it to return, which leaves Mr. Do unarmed for that length of time.

Apples

Each scene begins with six apples on the screen. The apples can be dropped on monsters to kill them—clear out the area beneath an apple and it will fall and crush any monsters in its path. An apple can drop one level without breaking if it doesn't kill any monsters. Apples can also be moved horizontally, as long as there is dirt to support them. Killing the monsters with apples is much better than shooting them,



Using an apple to kill the monsters...

because you get more points and can kill several at a time. Occasionally, an apple will contain a hidden diamond. When that apple is split, the diamond will appear. Getting the diamond will advance you to the next screen and earn you 8000 points and a free game. (In some parts of the country, it is illegal to award free games or credits. If this is true in your area, the machine may not award a free game after you collect the diamond.)



WORLD OF MR. DO!



...leaves Mr. Do free to eat cherries.

Monsters

The monsters emerge from the center of the screen one at a time until six to eight are loose. They kill Mr. Do by running into him. Shooting a monster earns you 500 points, but dropping an apple on one is worth 1000 to 8000 points. Killing all of the monsters will advance you to the next scene. Monsters prefer to travel through the pathways, but they can mutate into a striped creature that can dig through the dirt. The monsters move more slowly when they are digging, and often stop for a rest. They shy away from apples, but they seem to get stuck when an apple is about to fall on them.

Cherries

Cherries come in groups of eight. They are worth 50 points each, plus a 500 point bonus if you get all eight in one continuous sweep. Digging up all of the cherries is another way to end the scene, but not as efficient as killing all of the monsters. The monsters also dig up the cherries but you don't get points for the ones they get. Cherries

should just be considered bonus points during each scene.



Eating the last cherry finishes the scene.

Letters

When your score reaches a multiple of 5000, a letter enters the screen from the top. Shooting the five letters that spell EXTRA earns you an extra Mr. Do. It gets increasingly difficult to earn letters, so you should get as many as possible on the early scenes. Letters are capable of eating apples, so it is best to shoot them. When shot, a letter turns into an apple.



Crossing a multiple of 5000 points brings out a letter.

Letters chase Mr. Do when he doesn't have his power

ball and run away when he does have it, so they aren't very dangerous.

Center Bonus

After all of the red creatures have appeared, a bonus prize is revealed. The first prize is worth 100 points and increases to a maximum of 8000. Getting the bonus prize triggers several actions. The playfield turns red, the red monsters freeze and a letter comes out, accompanied by three blue monsters. The blue monsters chase Mr. Do, eating any apples in their way. Shooting one turns it into an apple. To return to normal play, you must kill the letter or kill all three of the blue monsters. If a letter is already on the screen when you get the prize, the three blue monsters will appear where the letter is.



Blue monsters pursue Mr. Do after he's eaten the bonus.

STRATEGY

Killing all of the monsters is the best way to complete a scene, unless you can get a diamond or the last letter in EXTRA. Use the apples to get maximum points, then get the bonus prize when you have one or two

monsters left. Save the power ball as a last chance weapon. Since the apples can be dropped one level safely, Mr. Do can set up little traps for the monsters. Dig straight up the column next to an apple, drop the apple one level and hide behind it. Push the apple so it hangs out over the open pathway. Wait for the monsters to come up underneath the apple. When one of them turns into a striped creature, push the apple on top of them and dig to another apple. On the higher scenes, don't wait for the monsters. The striped ones will dig under the apple and kill themselves.



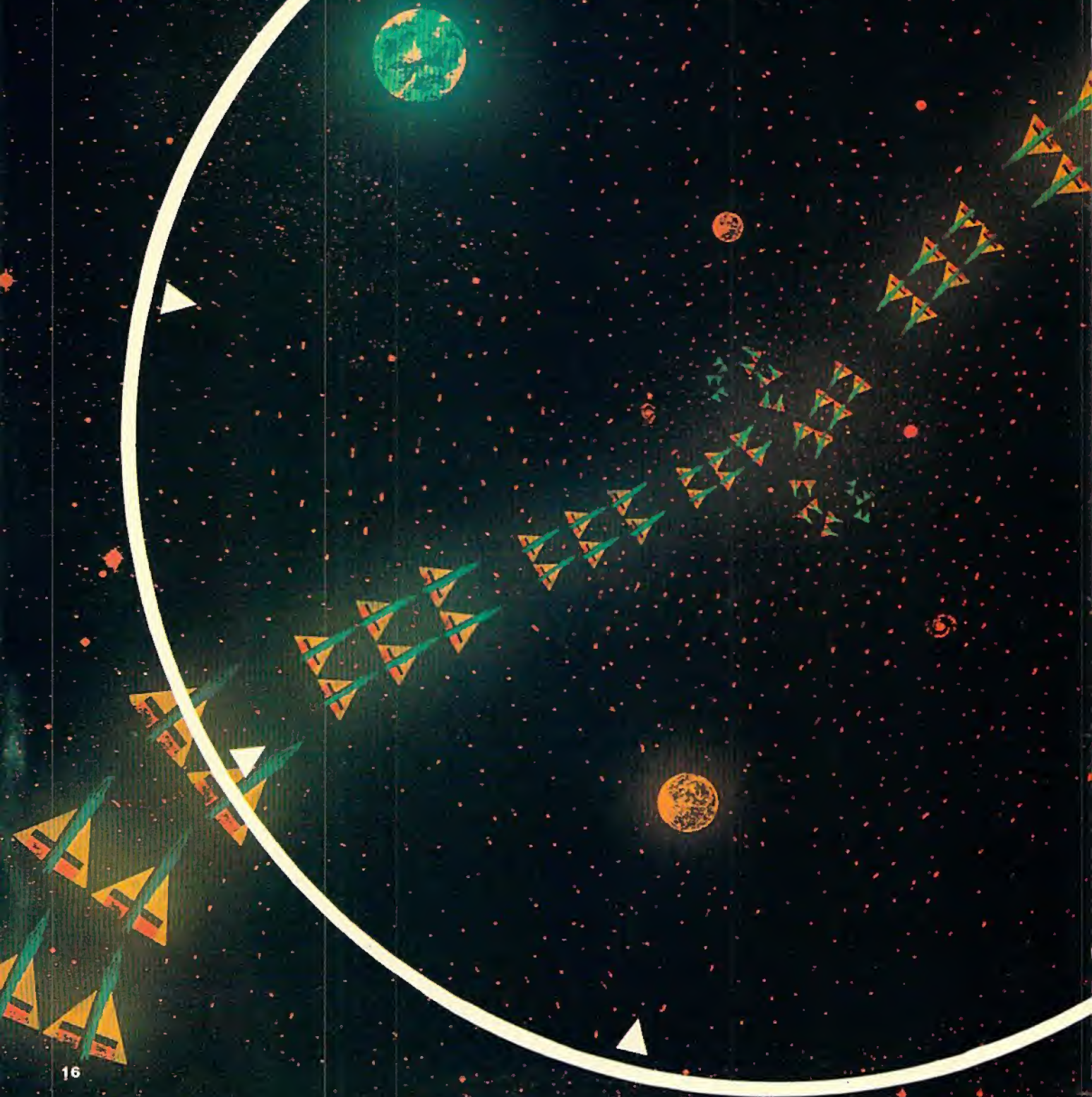
Setting up an apple trap at the top of a tunnel.

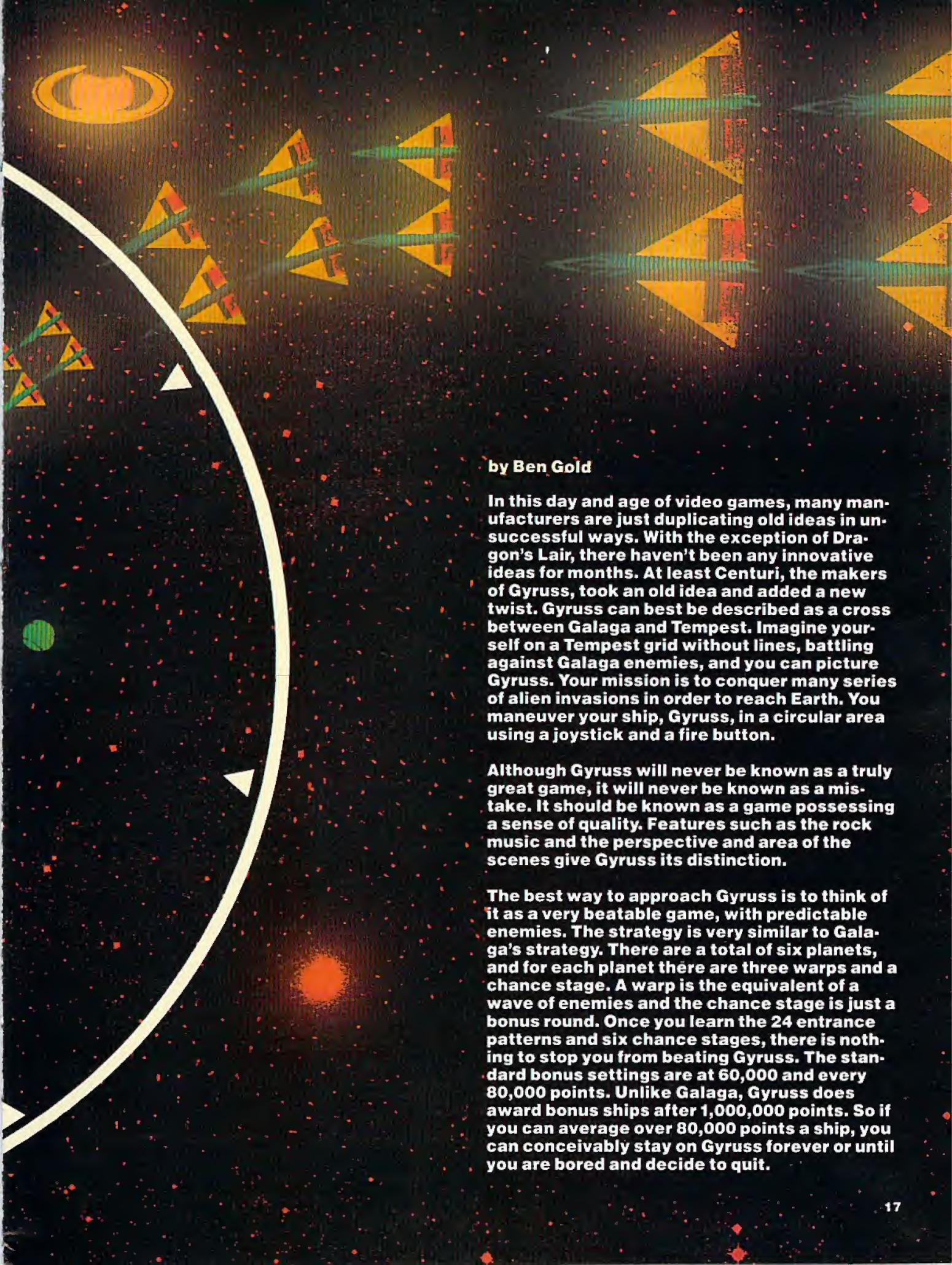


A successful drop kills all three monsters.

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by Ben Gold

In this day and age of video games, many manufacturers are just duplicating old ideas in unsuccessful ways. With the exception of *Dragon's Lair*, there haven't been any innovative ideas for months. At least *Centuri*, the makers of *Gyruss*, took an old idea and added a new twist. *Gyruss* can best be described as a cross between *Galaga* and *Tempest*. Imagine yourself on a *Tempest* grid without lines, battling against *Galaga* enemies, and you can picture *Gyruss*. Your mission is to conquer many series of alien invasions in order to reach Earth. You maneuver your ship, *Gyruss*, in a circular area using a joystick and a fire button.

Although *Gyruss* will never be known as a truly great game, it will never be known as a mistake. It should be known as a game possessing a sense of quality. Features such as the rock music and the perspective and area of the scenes give *Gyruss* its distinction.

The best way to approach *Gyruss* is to think of it as a very beatable game, with predictable enemies. The strategy is very similar to *Galaga's* strategy. There are a total of six planets, and for each planet there are three warps and a chance stage. A warp is the equivalent of a wave of enemies and the chance stage is just a bonus round. Once you learn the 24 entrance patterns and six chance stages, there is nothing to stop you from beating *Gyruss*. The standard bonus settings are at 60,000 and every 80,000 points. Unlike *Galaga*, *Gyruss* does award bonus ships after 1,000,000 points. So if you can average over 80,000 points a ship, you can conceivably stay on *Gyruss* forever or until you are bored and decide to quit.

ENTRANCE PATTERNS

As stated earlier, each planet has three warps to it. Each warp consists of four groups of enemies. While Gyruss is on any one planet, the entrance patterns (ways the enemies come on to the screen) are the same for each group. For example, if the four groups begin at points x, y, z, and q on three warps to planet P, all four groups will begin at the same points on all succeeding warps to planet P.

The enemies that survive the entrance pattern will reach the attack formation at the bottom. After all four groups have entered, the enemies begin their individual attack. If there is a deficiency of enemy ships in the formation, a fifth group will appear with a random entrance pattern from the first five planets. Once all the attacking ships from the formation are destroyed, Gyruss enters another warp.

ATTACKING ENEMIES

The three types of enemy ships all act the same when they make their

entrance, but when they begin their attack, they take on different characteristics. Enemy ships are worth 100 points apiece while flying, and 50 points when they are in formation. Since Gyruss moves in a circle, the enemies have a harder time trapping Gyruss because there are no corners like the ones in Galaga. Beginning players should try to learn how to weave between the enemy shots.

The gray ships attack in a circle and do not react towards Gyruss. Therefore, these are the easiest to kill. The red ships are the most dangerous because they swarm below Gyruss with many reverses, trying to surround you with bullets. The third type of ship is the blue ships. Blue ships do reverse, but not as violently as the red ones. It is best to concentrate on destroying the red ships when they begin their attack.

If most of the enemies reach the attack formation, you should take advantage of the moment between the time the last

group reaches the formation and the time they charge by making a circle or two around the screen while firing as fast as possible. This will eliminate a great number of enemies. As soon as the enemy ships begin their attack, try staying in one place for a few moments. Since many of the enemies reverse around Gyruss, they are bound to get caught in your path of fire. When you see that their bullets are about to reach you, move to an open area and try this strategy again.

METEORS

By themselves, meteors are easy to avoid, but when a meteor combines with other enemies, hazards are created for Gyruss. For instance, when a player is on Jupiter and battling the first group on the top right, a spray of bullets can be shot by the enemy ships, and if a meteor is on the other side the possibility of death is increased. If this situation occurs, move to the open area before they can surround you. More enemy ships will reach the formation

but Gyruss will escape with its life. Meteors are indestructible, but they are worth 100 points each time they block your shot. If Gyruss stands still, the meteor that comes out will exit on either side, never hitting it. This is because the meteors are designed so that they close off Gyruss's path.

FORCE FIELDS

Force fields act in the same way that the meteors do except they can be destroyed. These adversaries consist of two objects at a distance from each other connected by a force field. The best way to defend against one is to be constantly aware of where it is. If it is apparent that the force fields are going to combine with the enemy ship's bullets to trap Gyruss, it is a good idea to shoot one of the force field objects, which breaks the field and allows Gyruss a safe escape path. Each object is worth 200 points. After one force field object is



Meteors are indestructible, so dodge them.



Shoot the sun for double firepower.



Three meteors challenge your double firepower.



Spin and shoot after the last group enters.

destroyed, the field remains lethal for an extra second. Therefore, if the field is within a second of reaching Gyruss, killing one object will not bring safety; only by avoiding the field will Gyruss survive.

SATELLITES

Satellites appear just after all the enemies reach the attack formation and right under where Gyruss is positioned at that time. There must be at least three enemies in the formation for the satellites to come out. The first time you see the satellites, two satellites will appear with a sun between them. When the sun is hit, Gyruss is given double firepower. As long as Gyruss has this firepower, the satellites will appear in groups of three. When Gyruss is destroyed, its firepower is reduced to its original strength. As long as Gyruss has single firepower, the sun will appear between the two satellites.

The sun is worth 500 points. The satellites are worth 1000, 1500, and 2000 for the last one that is hit. Although this sounds like a quick way to score 4500 points, satellites can be tricky. Satellites can shoot sideways, which means that you could be an inch to the right of the group and be eliminated by a lateral shot. In the later waves it is best to avoid them.

Many players have trouble in the later waves after they lose a ship because they do not understand how to get their double firepower back. The satellites rock back and forth. When they rock towards Gyruss, they shoot and move away. As soon as this shot exits the screen, move towards the satellites as they move towards you. The moment you are above them, try to destroy a satellite or sun and move out immediately. If you are unsuccessful the first time, then wait for the right moment and try again. After about seven seconds the satellites will exit the screen. If

there are many enemies to contend with, it is best to totally avoid the satellites.

CHANCE STAGES

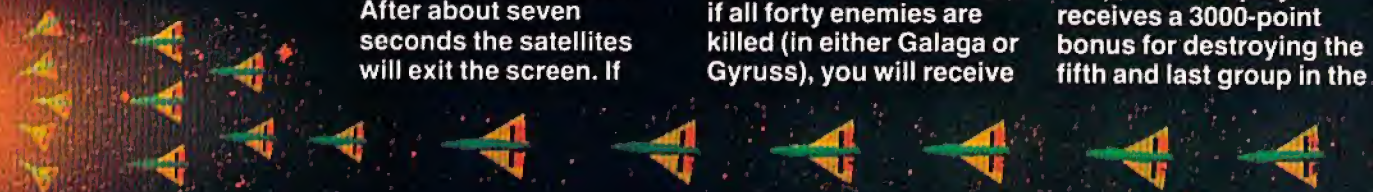
The main reason people believe that Gyruss is a copy of Galaga is because of the chance stage. Galaga was the first coin-op game where the player could receive "free" points (the Challenging Stages). Since Galaga came out, Super Pac-Man, Mario Bros., Mappy, and now Gyruss have copied this idea. While these other games just copied the concept from Galaga, Gyruss copied almost every aspect of Galaga's Challenging Stage. Gyruss must destroy four groups of ten enemies instead of five groups of eight enemies as in Galaga. The scoring is exactly the same for both games. Each enemy is worth 100 points each, and if a whole group of enemies is shot you receive a 1000 to 3000-point bonus depending on what wave or planet you are on. Finally, if all forty enemies are killed (in either Galaga or Gyruss), you will receive

a 10,000-point bonus.

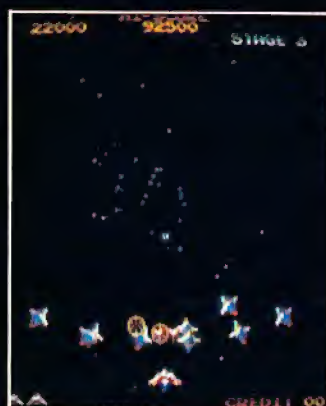
A perfect chance stage in Gyruss is worth between 18,000 and 26,000 points. Watch out if only one enemy is missed—you lose the 10,000-point bonus and must settle for the number of enemies hit multiplied by 100 points. This comes out to 3900 points or a loss of 6100 points for the bonus plus the loss of a bonus for missing a group. One lost enemy, therefore, will cost you 7200 to 9200 points.

BONUS POINTS

One thing that Gyruss offers is the chance for bonus points. If a group of enemies is destroyed before it reaches the attack formation, a 1000-point bonus is awarded to the player. Better yet, if a second group is destroyed before reaching the formation, the player is awarded a 1500-point bonus. This bonus increases 500 points for each group destroyed in this manner on the same warp, until the player receives a 3000-point bonus for destroying the fifth and last group in the



On the first chance stage, stay at the bottom...



...and shoot constantly with double firepower...



...through all four groups of enemies...



...for the 10,000-point bonus.

wave. If one enemy escapes into the formation, this bonus will not be given for that group. If the last enemy ship is destroyed, a 1000-point bonus is given to the player.

PLANETS

The patterns that are about to be explained are very effective ones. If you have a pattern that you feel is better than what is explained or if you feel that a variation of these patterns can help your game then use it. Don't be discouraged if these patterns are not working perfectly the first time you try them. It's hard to take written advice and apply it to your game but if you read closely, do some experimenting and find the variations that work best for you, your game will improve.

The easiest way to explain how to play Gyruss is to think of the player's area as a clock. The eight major areas that Gyruss will utilize are 12:00, 1:30, 3:00, 4:30, 6:00, 7:30, 9:00, and 10:30. These shall be known as the top, top

right, right, bottom right, bottom, bottom left, left, and top left, respectively. The top, right, bottom, and left will be known as the sides, and the top right, bottom right, bottom left, and top left will be known as the corners. Now on to the planets.

NEPTUNE

Neptune is one of the easiest planets to conquer. All four groups begin at one end and intersect at the opposite end. It is best if Gyruss is at the intersection. The intersection for each group occurs at the bottom, bottom right, bottom left, and top. On the first and second waves, all four groups can be stopped before reaching the attack formation, but in later stages it becomes difficult to do this because the enemies surround Gyruss with bullets. To avoid death, move out when you see the enemies shoot a spray that will surround Gyruss. The player will not get three warps to Neptune until Gyruss has passed Earth, but the enemy groups appear very quickly. Still, start at

the intersection but fire *before* the ships reach the intersection and move out as soon as they meet.

URANUS

Even on the later stages of Uranus, it is possible to destroy all groups before they reach attack formation. In order, the groups start at the left, right, top, and top. They all go down approximately one quarter of the screen in two lines with five enemies on each line. Then they make a loop and break off into the formation. It is best to first go after the front few enemies before they reach the loop, where they are most vulnerable, and then destroy the rest when they reach the loop. At worst, one or two enemy ships will reach the formation.

On the first group, begin between the bottom right and the bottom. As soon as one or two enemies are destroyed, follow the rest into the loop and finish them off. Gyruss should be positioned between the bottom and the bottom right for the

second group, and it should move towards the bottom once the front enemy is destroyed. Put Gyruss one inch above the left for the third group and one inch above the right for the last group. Then move it toward the sides when you destroy the first few enemies. From one warp to Uranus on, adjust Gyruss to the sides instead of one inch away. The reason for this is because the groups appear faster and the loop is adjusted one inch from where it occurred earlier.

SATURN

On Saturn, there is a lot of room for improvisation. As a matter of fact, there isn't a perfect system. One thing to remember on Saturn is to never let the enemies get in front of Gyruss. If this happens, you can go against the flow. On the first group, for example, start at the left and go counterclockwise with the enemies. The bottom is the best place to start for the second group. In the early stages, it is possible to destroy the third group just left of the bot-



Neptune's first entrance pattern intersects at the bottom.



For the second pattern, move to the right.



The third pattern appears at the bottom left.



And the final pattern is centered at the top.

tom, as it enters the screen. Later, it is better to start at the left and go clockwise. For the last group, put Gyruus at the top right corner and go counterclockwise.

MARS

Mars is different from all the other planets, because the enemies don't break off the entrance pattern all at once, they break off the pattern one at a time. Like Saturn, as long as Gyruus can stay in front of the enemy ships, everything will be all right. Once an enemy gets in front of Gyruus, it is best to try to weave between the bullets until they reach the formation. The following patterns are very conservative; they allow more enemies to reach the formation, but make it easier for Gyruus to survive. Start at the right and go clockwise for the first group, and begin left and go counterclockwise for the second group. For the third group, start at the right and go clockwise. For the final group, put Gyruus at the top left corner and go counter-

clockwise.

JUPITER

Although their entrance patterns are very different, the first and third groups both reach their most vulnerable point at the top left corner. With correct timing, Gyruus can destroy all enemy ships before they reach the formation. Always pay attention to the rocks and bullets to avoid getting trapped. The second group can be taken care of easily by positioning Gyruus on the bottom or a little to the left of the bottom. The fourth group can be destroyed by putting Gyruus on the bottom left corner.

EARTH

These warps separate the amateurs from the pros. Chances are, the first time you achieve three warps to Earth (even with four ships), you will not reach Earth. The only way to conquer Earth is to know what you are doing. For the first group, begin a little below either the bottom right or the bottom left corner. As soon as the enemies appear, go up

and then return to your starting point for the next group. Gyruus should be at the top right or the top left corner and moving down for the third group. When it is safe, return to the top right or top left for the last group and repeat the above pattern. The biggest disappointment in this game is when you finally reach Earth. After struggling and clawing your way to this seemingly unattainable goal, you discover that Earth is a mere chance stage.

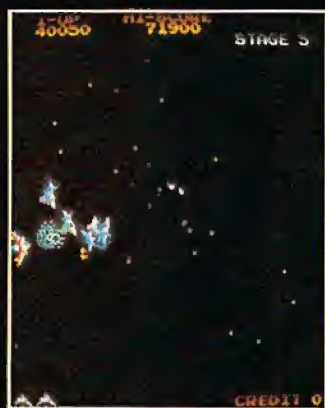
About the author...

Ben Gold, the author of these Gyruus strategies, has been competing on a national level since he was 14 years old. A resident of Dallas, he began playing games seriously in 1981 when he travelled to Chicago for a Centipede contest sponsored by Atari. Later, in March of 1982, he reached semifinal status in a statewide Defender playoff held by 7-11 retail stores in Texas.

Ben has competed twice on national television and both times emerged a winner. The first was a contest on *That's Incredible* in January, where Ben placed first among the top four players in the country. In May he beat Eric Ginner at Millipede on the cable TV special *Video Game Challenge* and returned home with an arcade version of the game.

No stranger to high scores, Ben has held the world record on Stargate (40,001,150 in September 1982), Q*bert (17,899,325 in March 1983), and is the current champion on Millipede with 4,304,549. He briefly held the record on Gyruus earlier this year with 2,003,550.

When *Life* magazine visited Ottumwa, Iowa, in 1982 to report on the arcades of the "Video Game Capital of the World," Ben was one of the featured players. He was also selected to be a member of the U.S. Olympic Video Team, which recently travelled across the country holding statewide tournaments.



After Neptune, entrance patterns are more complicated.



Be careful when a force field approaches.



Always stay ahead of the group for Saturn's entrance patterns.



Ben Gold

MAPPY

by Eric Ginner



Mappy is a unique cat and mouse adventure game featuring Mappy the micro-policeman, with cartoon graphics that fit the story line very well. Mappy's job is to collect the loot that Goro and his gang of Meowky have stashed in a strange house. The cats chase Mappy around the house, trying to catch him before he can collect all ten items. Mappy has several possible methods of collecting the goods, which makes this game more than just another Pac-Man ripoff.



CATS

Goro, the big red cat, moves in a pattern that is never affected by where you are. He starts at the top and goes from side to side on the same level. When he reaches the side of the house, he drops down one level and goes back to the other side of the house. If he runs into a prize, he hides behind it for a few seconds. If you get the prize with Goro behind it, you get a 1000-point bonus.

Meowky, the smaller cats, are smarter and try to follow you. Some will follow behind you and others will try to trap you by getting ahead of you. Goro and Meowky can kill you only when you're on one of the floors. The smarter cats will try to get on top of you in the air and jump onto the

same floor. If you both get off on the same floor, you will die. They prefer to get off on the top and bottom floors and they go to the right more than the left. If a cat is on top of you, don't jump on a floor. Bounce on the trampoline until it is safe to get off. (You only get three jumps before you have to get on a floor, because the trampoline breaks after three consecutive jumps.)

If you take too long to complete a round, an alarm goes off warning you to hurry. More cats come out and all of the cats speed up. A little later, another alarm will go off and the super cat will come out. He can kill you anywhere, even in the air. He isn't affected by closed doors, microwaves (see below), or bells, but he will fall through trap doors.

One problem that the super cat has is that he can get stuck on the bottom of the screen. If you stand on the top floor, he will go back and forth on the bottom. You can hit the cats with the top door as long as you want to. This is particularly easy on rounds 13 and 14. Once all of the cats are on the opposite side of the house, stand just behind the top door that is closest to the middle. The cats can't get you from behind. As long as you don't let them get through the door, they can never get you.

DOORS

Several doors are placed throughout the house. You can open and close a door as long as you are facing it. The cats can only open the doors. If a cat runs into a door that opens toward him, he is knocked backwards and stunned. Open-

ing a glowing door releases a special microwave that carries away any cats in its path for extra points. The more cats it gets, the more points you get. If it gets Goro, the points are doubled. After the microwave is used once, the door is just a normal door. Save the microwaves until a bunch of cats are close behind you. After releasing the microwave, follow it to make sure you get as many cats as possible. You only get the points if you can see it hit the cats.

The doors are your only means of survival in the later rounds. The cats become much faster than you, especially after the hurry alarm. By closing the doors on the cats, you can keep them away from you. The best trick is to go through a door that opens toward you. Just as you reach the edge of the open door, close it. You will be pushed forward through the door as it closes behind you.



STRATEGY

Mappy is a pattern game, but patterns aren't easy to use. In each round, the cats start in the same place, but they can either go left or right. Instead of using two separate patterns for each round, the best strategy is to use patterns for the first part of a round, then improvise using more of a system than a pattern.

The first six rounds are the ones to be greedy on. Get the less valuable items in pairs first. When you get them in pairs, the value of the second one is multiplied up to a maximum of six times. Save the two safes for last so you can get the 500×6 . Save the four microwaves until the hurry alarm goes off—two additional cats will come out and you can get more

points. Use one of the bottom microwaves to carry away all of the cats. Wait by the next microwave for the group of cats to come to you and get them again. After using all four microwaves, clear the remaining items.

On rounds 8 to 10, there are bells on each side of the house. You can drop the bells on the cats and stun them for extra points. Get a lot of cats under the bell before dropping it by bouncing against the wall. Once you've stunned them, they all bunch together, so it's a good time to use a nearby microwave. The hurry alarm sounds sooner in these rounds, so it's important to clear the long middle floors while there are fewer and slower cats.

In rounds 12 to 14, there are special trap doors. When you run over the glowing part of the floor, a hole opens up and any pursuing cats fall through. After a few seconds, the hole closes to become a normal floor. These rounds should be cleared as quickly as possible, since some of the prizes are hard to get. In round 12, both safes are on dead ends, so you should get them early—just after using a microwave or trap door. In rounds 13 and 14, leave the safe with a trap door in front of it for last. In round 16, the cycle of four houses starts over. The cats are still fast, however, and the hurry alarm goes off very quickly.

BONUS ROUNDS

Round 3 and every fourth round thereafter is a timed bonus round. Your goal is to pop all of the balloons before the time runs out. In the first two bonus rounds, you must pop all of the balloons yourself. When you need to drop through a trampoline, bounce against the left wall until you break through. Always bounce to the left so you don't get off center and miss balloons. In round 11, leave the balloon directly above Goro's balloon. Goro will bounce up and pop it for you. In round 15, leave the top balloon just to the right of Goro. In round 19, the first bonus round is repeated and the cycle of four houses starts over.



MILLIPEDE

by Eric Ginner

THE WINNING EDGE



THE BUGS ARE BACK... AGAIN

Millipede is another of the infamous sequel games. Fortunately, Millipede is different from most sequels because it is actually better than its predecessor, Centipede. Millipede has all of the qualities that made Centipede so popular and it adds even more to slow down Centipede experts. Trick strategies that work so well in Centipede are not practical here.

Millipede is best played in the classic shoot-em-up style. Strategy is still a part of the game, but it's much more involved than just building a trap or a block in Centipede. As in all Winning Edge articles, we assume that you're already good and want to improve. In this case, we will assume that you start at 300,000 points, the highest starting level.





The number of attacking spiders depends on your score.

SPIDER WAVE

Immediately after you start, you are attacked by several spiders at once. As soon as the wave begins, move to the top row, two columns over from one side. You can shoot all of the spiders entering on that side right away. Move to the center to kill the remaining spiders. If you can't shoot the millipede yet, wait on the side for the next group of spiders to come out.

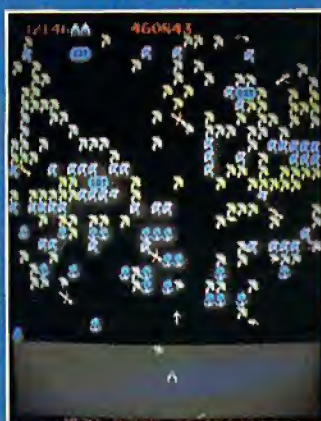
When you have a clear shot at the millipede, shoot it all at once so you don't have to chase heads while dodging spiders. The millipede is shorter than 12 segments in spider waves, which makes it a little easier. It's best to end the wave as quickly as possible rather than hunt spiders for points.



A swarm of bees attacks after the second millipede.

SWARMS

Five different times during the cycle of 12 millipede heads, you will be bombarded by a swarm of insects. These waves are a major source of points. The first swarm is all bees, and it comes after the second millipede. After the fifth millipede, it's all dragonflies. Mosquitoes come after the eighth millipede, and all three types of insects attack at the same time after the tenth and 12th millipedes.

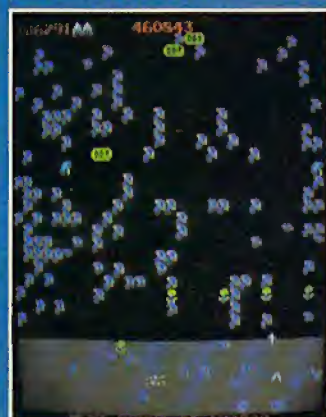


Mosquitoes follow the eighth millipede in a cycle.

It's very important not to die during one of the swarms. If you stay alive, a swarm can be worth up to 30,000 points later in the game. To prepare for a swarm, don't shoot the last head until any spiders and beetles are near the side and leaving the screen. Clear a path to a DDT bomb if possible, so you can use it to kill several insects at once. It will quickly build their value to the maximum of 1000 points each. Concentrate on one thing—shooting as many bugs as you can. Don't waste time clearing mushrooms until after the swarm is over. As your score increases, the length of the swarms also increases, making them worth lots of points.

SCROLLING WAVE

On the sixth millipede, the mushrooms begin scrolling down. They don't stop unless you kill the millipede, shoot a DDT bomb, or lose a life. You have to do one of these three things quickly or you'll be overwhelmed by mushrooms on the bottom.



Stop the scrolling wave to avoid this congestion.

First try to hit a DDT bomb. It's a good idea to clear a path to one before the wave starts. If you can't use a DDT, try to kill the millipede before the mushrooms get too low. As a last resort, die on purpose.

The scrolling wave follows the swarm of mosquitoes. If you can shoot a lot of mosquitoes in the swarm, the mushrooms will scroll way up the screen, and you'll have plenty of time to kill the millipede while the mushrooms come back down. Remember, if you scroll the mushrooms way up the screen, you won't be able to fire very fast. You'll have to take single shots, making sure you hit the millipede each time.



BEETLES

Beetles present many problems. They come out of the side and move along the bottom of the screen. After they've gone about a third of the way across they randomly pick up a column and move into the mushrooms. They never go all the way to the end before going up, however.



Be careful when beetles approach from both sides.

Beetles don't come out on the spider waves. On the other waves, they don't come out until you shoot at least one piece of the millipede. They also don't come out during the side feed. Since shooting a beetle makes the mushrooms move down one row, you should just leave them alone. You can avoid having them come out by not shooting the millipede until it gets near the bottom, then kill it all at once. After you reach 400,000 points, the beetles speed up, so you have to be more careful around the sides when they come out.

FLOWERS

When a beetle runs over a mushroom, it turns into a flower. Flowers can be both good and bad. They stop any stray shots, which helps you fire faster, but they can block your movement and make the millipede reach the bottom faster.



Sparing the beetles results in a flower garden.

Flowers can't be shot; the only way to get rid of them is to let the spider eat them. You can get rid of a single flower, however, at the end of a wave. After each millipede is killed, the mushrooms move down one row as the colors change. Just before they move down, sit under the flower you want to get rid of. When the mushrooms go down, the flower will disappear.

DDT BOMBS

Only four DDT bombs can be on the screen at one time, so they should only be used for special purposes. Once a DDT is exploded, it is replaced by another the next time the mushrooms scroll down. Make sure you have one available to stop the scrolling wave. DDT's are also good to use in the all head waves. One DDT cloud can kill several heads and give you a chance to shoot the others before the side feed starts.



A single DDT bomb can kill an entire millipede.

SIDE FEED

The side feed in Millipede is easier to handle than it is in Centipede for two reasons: Millipede is much more forgiving in detecting collisions with the heads, which allows you to move between them more easily, and the side feed never gets ridiculously fast, which is a nice improvement over Centipede. The side feed starts out slow and reaches a peak level, and once it reaches its peak it doesn't start over like Centipede's does.

At its fastest, the Millipede side feed can still be cleared. The most important thing is not to rush. Clear most of the mushrooms from the gray area, then stay towards the edges. Shoot the stray heads near the side and you can hit the ones coming out of the side right away.



Don't be intimidated by the side feed.

Clearing the mushrooms should be your highest priority. The worst thing you can do is die and leave tons of mushrooms in the gray area—you'll just start the side feed again. If necessary, you can just keep the side feed going and shoot heads for quite a while.



TRICKS OF THE TRADE

THE ROUGHEST, TOUGHEST ARCADE IN THE GALAXY...
WHERE PLAYERS FROM A THOUSAND WORLDS DO BATTLE...



STARGATE

This trick is very hard to do and doesn't help your game, but it looks neat and will get you a refunded token at most arcades.

The basic idea is to hit hyperspace right at the instant you enter the Stargate, and then hit hyperspace again when your ship reappears. If the timing is right, the terrain at the bottom of the screen will move up to the center and begin scrolling to the right so quickly that it looks more like an electrocardiograph than a video game. This effect will continue until the machine is turned off and back on.

The timing in this trick is very difficult. In fact, it probably won't work until you have tried it many times. For this reason, you should try it with a 2-credit (7 ship) game, and maybe even warp once or twice to earn more extra ships. Then just fly into the Stargate and start pounding on the hyperspace button as soon as you enter. Do this over and over until the trick works, and then go tell the arcade manager that the Stargate machine is broken

and you lost a token in it.

DEFENDER FROZEN SCREEN

In the Editor's Message of the September issue, I mentioned freezing the screen in Defender. Since then, we've received several letters asking how to do this trick. Just in case you missed it in our special edition of How to Win Arcade Games, here it is again.



The Defender screen frozen on Wave 1.

This trick works best on the first wave. Wait for the Landers to pick up Humanoids, and then shoot the Landers and catch the Humanoids without setting any of them down. After you have caught all ten Humanoids, find a clear part of the screen and coast to a stop. When your ship has completely stopped moving, pull straight down on the altitude lever. This will set all ten Human-

oids down directly on top of each other.

You can tell immediately whether the trick has worked, by watching the red, blue, and yellow 500's that appear next to the Humanoids. If they are changing color or moving, then the trick didn't work and the opponents will continue moving. But if the 500's are not moving, the game is frozen and nothing will move until you hit the thrust button.



Xevious' designers left their mark in the program.

XEVIOUS DESIGNER

Because most game manufacturers don't give their designers name credit, a game designer will often include in the program a

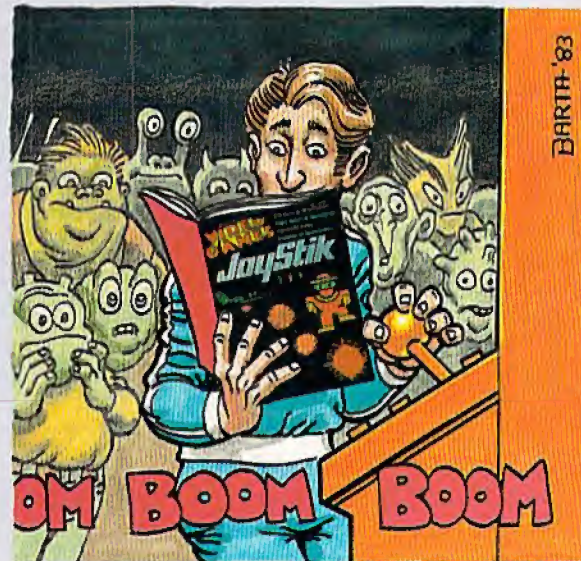
trick for generating his or her name. This provides permanent proof of who programmed the game.

The designer of Xevious has included a trick for generating his name right at the beginning of the game. As soon as Solvalou appears, move to the far right edge of the screen and begin bombing constantly. Continue bombing until the first set of attacking rings is very close to you, and then shoot the rings. The message shown in the picture above will appear on the screen.

SINISTAR

Sinistar is a fun game, but it gets really hard really fast. In fact, many players get discouraged and stop playing after they have mastered the first two zones, because the higher zones are so fast. If you're one of these players, the following trick should renew your interest in Sinistar—it gives you 255 free turns.

To accomplish this feat, you must be playing on your last turn and have just enough bombs in reserve to finish off the Sinistar. Throw bombs until there



is only one piece of the Sinistar left. At this point you should have one bomb remaining in reserve and be on your last turn.

Now comes the hard part: throw your last bomb, and then destroy your ship before the bomb hits the Sinistar. Your ship can only be destroyed by a Warrior's shot or the Sinistar itself, so you have to plan out your demise before throwing the bomb. The best way to do it seems to be throwing the bomb away from the Sinistar—by coasting past it—and then turning back into the Sinistar before the bomb returns. If the trick works, you'll have enough turns to make it past the second zone even if you average 100 turns per zone.

JOUST

Like the Dig Dug trick described in this column in July, this one isn't helpful or useful, but it's entertaining. The lower right ledge in Joust is really two ledges at different levels with a small gap in between (see the picture above). It is possible to fly your ostrich through that gap, even though it looks too narrow.

Start out by flying to the left over the lower level (to the right of the gap) with the bottom of your Ostrich just skimming the surface of the ledge. If your knees are dragging on the ledge, you'll squeeze through the gap and appear below the ledge. Note that you can not walk through the gap, because the Ostrich is too tall when its legs are extended. Eggs can fit through the gap also, if you throw one up from below. Either hit a buzzard just below the gap to throw an egg up through it, or bounce an egg off the center ledge into the gap.

Another entertaining and useless Joust trick is to leave a "phantom ener-

gizer" on the screen during the waves that have no upper ledge. To do this trick correctly, you must be playing a two-player game, and you must set it up on a wave just before the upper ledge disappears, such as the fifth wave or the Egg wave.

Clear all of the opponents in that wave except one. Then hit the remaining buzzard at a point that will leave the egg in the middle of the bottom ledge. Player 1 should stand on the lower energizing platform while Player 2 jumps in the lava. The place where Player 2 reappears determines if the trick will work.

If Player 2 is on the ener-

gizing platform at the top of the screen, it is possible to make the platform disappear, leaving just a white cloud floating in space. To do so, Player 1 must grab the egg on the bottom ledge. This will end the wave and the upper ledge will disappear, but the phantom platform remains.

For the trick to be successful, Player 2 must reappear on the top energizing platform after jumping into the lava. If he reappears on one of the other platforms, you'll have to go to the next wave before that platform disappears and then try again. Since this trick costs Player 2 a turn each time, it's always better to be Player 1.



By bouncing on your knees, you can pass through the small gap between the rock ledges.

HELP!

If you would like to see your favorite trick in this column, write it down and send it to: JoyStik® Magazine
Tricks of the Trade
3841 W. Oakton
Skokie, IL 60076

Thanks to Ben Gold and Todd Walker for this issue's tricks.





NEO BLASTER

by Doug Mahugh

In April of 1981, two game designers working for Williams Electronics quit their jobs and set out to "explore new frontiers and raise the state of the art of game design." Their names were (and still are) Larry Demar and Eugene Jarvis, and the games they have designed together—all manufactured by Williams Electronics—have shown their dedication to those original goals. First came *Stargate*, the spectacular sequel to *Defender* and one of the most popular games of 1981. Next was *Robotron*, last year's original and exciting coin-op hit. Now, for the third year in a row, Vid Kidz and Williams Electronics have come out with a game that looks and plays like nothing you've seen before: *Blaster*.

The most striking feature of *Blaster* is the realistic flight simulation, which is the best yet in a video game. You're in the cockpit of a spaceship flying through deep space, battling wave after wave of lethal opponents. Stranded astronauts tumble through space, and you can rescue them for extra points or ignore them and just try to stay alive. (Note the similarity to *Stargate* and *Robotron*; saving humans is an integral part of every Vid Kidz game.) Groups of enemies can attack from the front or the rear, and it isn't unusual to have a dozen or more opponents on the screen at once, all firing deadly missiles or trying to ram your ship. Everything moves with true three-dimensional perspective, and you control your ship's flight with an airplane-style joystick like Zaxxon's (pull back to go up, push forward to go down). Fire and thrust buttons are located on the joystick under your index finger and thumb (with optional buttons on either side of the control panel), giving you simple and powerful control with one hand.

On the following two pages, you'll find photographs of the 30 different attack waves in the game, along with an explanation of the 11 basic types of waves. Then, on pages 38-41, scoring and priorities for each type of wave are explained in detail, along with general strategies and observations.



WAVE 1: PLANETOIDS
Hit the E for 10,000 points.



WAVE 2: ROBOT GRID
Hunting robots at ground level.



WAVE 3: SAUCERLAND
Shoot the red saucer last.



WAVE 4: VAMPIRES
Try to clear entire groups.



WAVE 9: PLANETOIDS
The E now comes from behind.



WAVE 10: OUTER SPACE
Shoot groups for bonus points.



WAVE 11: TIME TUNNEL
Save the stranded astronauts.



WAVE 12: ROBOT GRID
Devils on the planet's surface.



WAVE 17: OUTER SPACE
A rapidly approaching Starcruiser.



WAVE 18: PLANETOIDS
Chasing the Runaway Ships.



WAVE 19: TIME TUNNEL
The toughest tunnel of all.



WAVE 20: CAT WORLD
Squads of flying felines.



WAVE 25: VAMPIRES
Shooting a Vampire point-blank.



WAVE 26: HOLLOW GRID
The last ground battle.



WAVE 27: CAT WORLD
Second attack of the Space Cats.



WAVE 28: PLANETOIDS
Nail the Runaway for 500 points.

The pictures above show highlights of each of Blaster's 30 different attack waves. The Attack Waves can be divided into nine basic types: Planetoid Waves, Robot Grid Waves, Saucerland Waves, Vampire Waves, Time Tunnel Waves, Outer Space Waves, Enduro Waves, Cat World Waves, and Mastermind Waves. Armageddon and Paradise occur only once

and are described later.

There are seven Planetoid Waves. You must dodge rocks and planets, while fighting different types of enemies. Planetoid waves also include the all-important flying E, which is worth 10,000 points and restores your shields to full strength.

The Robot Grid is the only scene on the sur-

face of a planet. You are attacked by Robots and Androids on the ground, while spaceships fire from above and drop bombs. Flying through Red Arches increases your score quickly because they're worth up to 5000 points.

Saucerland is the only wave with specific strategies that work every time. The saucers attack in formations of up to 11

at once, including one red saucer (the Bonus Saucer). Shooting the Bonus Saucer first or last will earn a 5000-point bonus. Strategies for Saucerland are covered on page 40.

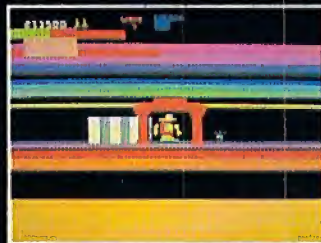
Vampire Waves are very difficult. A group of three to seven vampires move towards you in serpentine motion, firing constantly. The white and green ones are the most



WAVE 5: PLANETOIDS
The rocks are now planets.



WAVE 6: TIME TUNNEL
The only "peaceful" wave.



WAVE 7: DOUBLE GRID
This wave features many arches.



WAVE 8: SAUCERLAND
Hit this red saucer first.



WAVE 13: PLANETOIDS
Close-up view of a rock.



WAVE 14: SAUCERLAND
One of the toughest formations.



WAVE 15: VAMPIRES
Keep moving to avoid the bullets.



WAVE 16: ENDURO
Fifty Deathriders in a row.



WAVE 21: DOUBLE GRID
Robot guarding a Sentry Tower.



WAVE 22: ENDURO
A barrage of Masterminds.



WAVE 23: PLANETOIDS
The solo bonus saucer.



WAVE 24: MASTERMINDS
Fly through them for 5000 points.



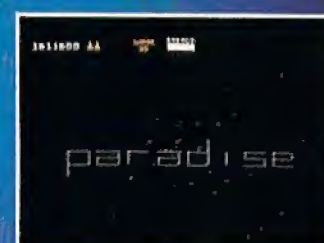
WAVE 29: ARMAGEDDON
A little of everything...



Masterminds followed by a saucer formation.



Two Deathriders leading a group of Space Cats.



WAVE 30: PARADISE
A secret surprise follows this screen.

deadly, curving up and down as well as back and forth. A bonus is awarded for shooting all the Vampires in a group.

There are no enemies on Time Tunnel Waves, just stranded astronauts tumbling through the tunnel. You must try to save them by running into them.

In the Outer Space Waves, groups of

spaceships attack from the front or the rear. The enemies in these waves include X-29 fighters, Destroyer Fighters, Satellites, and even Space Cowboys perched atop rockets. The biggest enemy is a giant Starcruiser worth up to 5000 points.

Three hundred opponents will attack you in groups of fifty in both Enduro Waves. First come

the Vampires, followed by the Flying Saucers, Deathriders, Masterminds, Space Cats, and Bonus Saucers. Your goal is to shoot as many enemies as possible. They drift past without moving, but the wave is dangerous because the enemies fire constantly.

In Cat World, the Space Cats attack in groups of three, five or seven. A bonus is awarded for

destroying all the cats in a group, and you get 100,000 bonus points for destroying every cat in the entire wave.

In the Mastermind Wave, the Masterminds throw large balls at your ship. Flying through the center of a group of four Masterminds earns a 5000-point bonus, and a 100,000-point bonus is awarded for destroying every Mastermind.



RUNAWAY SHIP
500 points each
2000-8000 bonus points



ASTRONAUT
1000-2000 points each



DEATH RIDERS
70 points
3000-6000 bonus points



THE E
10,000 points

Blaster, like Tempest, lets you choose the starting level for your game. You can start on any of the first four waves:

Planetoids, Robot Grid, Saucerland, and Vampires. Beginning players should start on Wave 1, because the Planetoid Waves are the most common and you must learn to play them well in order to master the game. Advanced players may want to skip the first three waves, starting on the Vampire Wave with a score of 300,000 (100,000 points is awarded for each wave skipped.) Or, you may want to try starting on Wave 3 (Saucerland). The saucers are a fun way to start the game, and if you play the saucer wave perfectly it can be worth up to 180,000 points.

After you choose a starting wave, the game begins. You start with three turns, and an extra turn is awarded every 100,000 points. Each turn is equivalent to three shields, and one shield is lost each time you run into a rock, planet, enemy, or bullet. The shield indicator at the top of the screen lets you know how many shields you have left; the first collision takes away one-half of the shield indicator, the second takes away the rest of it and flashes an "ENERGY CRITICAL" warning, and after the third hit the windshield shatters and your turn is over.

At the end of a game, Blaster gives you the option of starting another

game from the point where your first one ended. If you put in another token and press start before the 10-second timer runs out, you can start playing right where you stopped, with the same score. Bonus turns are awarded at the same scores (every 100,000 points) on continued games, so by using this feature you can "buy" a high score, but only up to Wave 30. After Wave 30, the continuation option is no longer available; this makes the high score on the game more meaningful.

Throughout the game, various types of opponents (e.g., Runaway Ships, Deathriders, Flying Saucers, and Destroyers) appear in groups. These groups vary in number from two to ten, and the number of enemies in the next group is never predictable. Bonus points are always awarded for destroying an entire group, so you should always try to shoot all of the opponents in a group. This is true in every type of wave. The exact value of each of the group bonuses is explained in detail under each type of wave below.

In addition to the group bonuses, a 100,000-point super-bonus (group-group bonus? metabonus?) is awarded for destroying all of the groups in a Saucerland Wave, Cat World Wave, or Mastermind Wave. The metabonus feature was not included in the Vampire Wave—if you're any

good, I suggest you take that as a direct challenge to shoot all of the Vampires.

Because of the group bonuses and metabonuses, the best way to play is to try to shoot every single enemy you see. This is particularly important when you consider that the continued-play option doesn't work after Wave 30; if you're "buying" a high score by restarting after every game, you need to make the first 30 waves count as much as possible. Otherwise, you'll get to Wave 30 with a lower score than other greedier players.

PLANETOID WAVES

Planetoid Waves are the most common, most important, and most difficult. They are important because they include the E (described below), and they are difficult mainly because of the rock field. You must constantly dodge the rocks just to stay alive, in addition to saving Astronauts, pursuing Runaway Ships and the E, and battling many different types of enemies.

The first opponents in a Planetoid Wave are usually the Runaway Ships. They appear in

pairs, and come onto the screen from behind and above, as if flying over your shoulders. There are no Runaways on Wave 1, but one or two pairs will appear on Wave 5, and on later waves up to three pairs (or six total Runaway Ships) can attack at once.

After the Runaways pass you, they continue flying forward until they are just small objects in the distance. They will then stay at that distance and fire at your ship. To destroy them, you have to use the thrust and chase them down. If you just ignore the Runaways, they will eventually disappear, but it's almost impossible to ignore them because they're constantly shooting.

When the Runaways first come past you, hit the thrust and begin firing. Always shoot at the most recent pair to appear—if another pair appears before you have destroyed the first two, let the first ones go and concentrate on the closer pair. Once all of the Runaways are out, continue thrusting and keep them at the top or bottom of the screen until you are very close, then pull up or down to finish them off. Runaway Ships are worth 500

points each, and the group bonus is 2000 for one pair, 4000 for two pairs, and 8000 for three pairs.

One interesting thing about Runaway Ships is that you can run into them without losing a shield. This is called "capturing" a Runaway, and is a worthwhile maneuver when you're chasing the last Runaway in a group, because capturing the last Runaway will double the group bonus.

Deathriders come in groups of three to six and are only worth 70 points apiece, but the bonus for finishing a group (1000 points per Deathrider) makes them a very attractive target. They fire quite a bit and are hard to hit, but because of the big bonus you should always attack them rather than avoid them.

Saucers and Astronauts are the only other valuable targets in Planetoid Waves. (Rocks are worth 100 points each, but who cares?) Formations of Saucers score the same as in Saucerland (see below), but with the red saucer bonus decreased from 5000 to 2500 points. If you miss the Bonus Saucer, it's sometimes better to avoid the rest of the group, because they aren't valuable enough to be worth the risk. A single pair of Saucers is worth from 300 points to 1000 points—depending on how quickly you can shoot both of them—and a solo Bonus Saucer is

worth 500 to 3000 points, depending on how close you can get before shooting it.

Astronauts are worth 1000 points each, with the value increasing by 200 for each Astronaut you catch without a miss, up to a maximum of 2000 points. The Astronauts sometimes seem very elusive; just stay calm when you see one, because most players miss Astronauts by overreacting.

The E comes out after a certain number of Astronauts have appeared. A short warning beep tells you that the E has appeared in the distance and you should start watching for it. Your goal is to run right over it, which will cause three things to happen: (1) the wave ends, and you warp to the next wave; (2) your shields are restored to full strength; and (3) you are awarded 10,000 points. The E is always a worthwhile target, and because of the restored-shields feature it is even more valuable when you're down one or two hits.

Starting with Wave 9, the E comes from behind like a Runaway Ship, and you have to chase it down. Chasing the E through the rocks with enemies firing from all around can be very risky. Try to keep the E to one side while you're approaching it, because it can block your view of objects ahead. Then, when you're close enough to hit it, pull it back to the center of the screen.



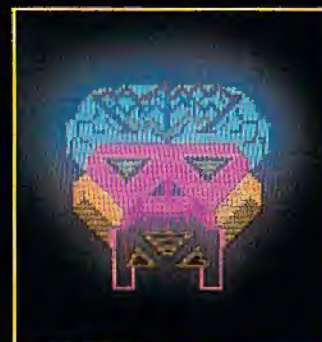
BONUS SAUCER
500-3000 points each
2500-5000 bonus points



VAMPIRE
100 points each
1500-10,000 bonus points



SPACE CAT
100 points
1500-5000 bonus points



MASTERMIND
100 points
500-5000 bonus points

ROBOT GRID WAVES

Magic Arches are the big-money targets here. Passing through an Arch scores 1000 points, and this value increases by 1000 for each consecutive Arch up to a maximum of 5000 points. Flying through every Arch in the wave can greatly increase your final score, even if you ignore the Robots and Androids (which are worth one-tenth the value of Arches).

Sentry Towers are the tall posts that look like basketball backboards, and they're worth 1000 points if you hit them three times in the white square. Since they're not as important as the Arches, be careful not to break a string of Arches by moving up for a Sentry Tower.

SAUCERLAND

There are seven different groups (or formations) of saucers, and each group includes one Bonus Saucer (the red one). The Saucers are worth 250 points each, but your goal here is not simply to shoot all of them, but to shoot the red one either first or last. If you shoot it first, all of the other Saucers will disappear and you'll be awarded the same number of points as if you shot them all, plus a 5000-point bonus. If you shoot it last, after shooting all of the other Saucers, you'll still get the 5000-point bonus. If you shoot all of the Saucers in any other order, the bonus is only 1000 points.

The best way to play the Saucerland Wave is to know the seven different formations and know exactly where to shoot for

each one. If you miss the Bonus Saucer with your first shots, try to save it for last—if you shoot the Bonus Saucer part way through the group, the Saucers will break out of formation and you'll be caught in their crossfire.

A couple of things that can help you in the Saucerland Wave are: (1) try to arm your second gun. Your shots come out of four different guns at the bottom of the screen, and arming the second one from the left will assure that the next two shots are well-centered; (2) guide your first two shots into the Bonus Saucer by moving after you fire. This is a bit tricky, but it is possible to pull the Bonus Saucer into shots that would otherwise miss it.

Saucerland has a 100,000-point metabonus that is awarded if you can earn the 5000-point bonus on ten groups in a row. If you miss a group after the fourth one, however, the wave is over.

VAMPIRE WAVES

Vampires come in groups of three to ten, and they attack viciously. They're worth 100 points each, and the group bonus depends on which type they are. The Vampires that serpentine in a single plane have a bonus of 500 points each, but the ones with three-dimensional serpentine motion (the green ones and white ones) have a bonus of 1000 points each. For the easy groups, try staying in front of the closest one and holding the fire button down. For the harder groups, you just have to aim carefully and avoid their shots. As men-

tioned earlier, there is no metabonus for completing all of the groups in a Vampire Wave.

TIME TUNNEL WAVES

On these waves, you don't have to fire and there is nothing that can attack you. You just fly through the Time Tunnel and try to rescue as many of the Astronauts as possible. The Astronauts are scored just like in the Planetoid Waves; 1000 for the first one, with the value increasing by 200 for each Astronaut in a string.

After you catch the first Astronaut, it's fairly easy to stay on track for the rest of them if you use small motions of the joystick. While you're catching each one, check where the following Astronaut appears and then tap the joystick in that direction. The only time you'll have trouble with this approach is when you move too far and overshoot an Astronaut; if they're moving quickly, you may miss several of them before getting back on track.

OUTER SPACE WAVES

In these waves, the enemies can be divided into two types: group enemies and solo enemies. Group enemies (e.g., X-29 Fighters and Destroyers) always attack in groups, and you should shoot them as quickly as possible so that you can achieve the group bonus. Most of the solo enemies (e.g., Space Cowboys and Starcruisers) are worth more points when they are closer to your ship, so you should wait as long as possible before shooting them. Since the enemies don't

move very much, you can really have a field day in this wave if your shots are hitting.

Starcruisers are the most valuable target in Outer Space, worth up to 5000 points if you're close enough when you shoot them. Space Robots and Space Cowboys are worth up to 2500 points—again depending on how far away you are—and Destruktor Satellites are 400 points each. The purple ships with two square wings are called Destroyers, and they're worth 200 points apiece. The group bonus for Destroyers is 500 each (when they come from behind) or 1000 each (when they come from the front). X-29 Fighter Ships (the orange and white ones) are worth 100 points each, with group bonuses of 1000 for two, 1500 for three, 4000 for four, and 5000 for five.

ENDURO

This wave includes enemies from the other waves, but they don't have their characteristic behavior. They just drift through space and fire at your ship. This difference is most noticeable at the beginning of Wave 16, because the previous wave is a Vampire Wave and the Enduro Wave starts with Vampires.

There are 50 of each opponent in this wave, and their value increases by 100 points for every two that you shoot. In other words, the first two of each type are worth 100 points each, the next two are worth 200 points each, and so on, increasing by 100 points with each pair, until a maximum of 2000 points is



reached. The value goes back to 100 points at the beginning of each type of enemy, and the order of enemies is Vampires, Flying Saucers, Deathriders, Masterminds, Space Cats, and Bonus (red) Saucers.

CAT WORLD

The Space Cats appear in V-shaped groups of three, five, or seven. They're worth 100 points each, and the bonus is 1500 for a group of three, 2500 for a group of five, and 5000 for a group of seven. A 100,000-point metabonus is awarded for destroying every Space Cat in the wave.

It's best to shoot the cats

in a group by starting at the left or right and working your way across. If you shoot the lead (center) cat first, you have to rush back and forth to get the others before they fly past you.

MASTERMINDS

When you first see the Mastermind Wave, the brown balls that they throw at your ship will seem overwhelming and unavoidable. But with a little practice, the balls are very easy to dodge. In fact, they're easier to avoid than regular shots, because it is easier to tell where you are in relation to them.

The Masterminds are

worth 100 points each, with a bonus for each group of four that starts at 500 and increases by 100 for each consecutive group. A special type of bonus is also available in this wave: if you pass through the center of a group of four Masterminds without shooting any of them, 5000 points is awarded. This ruins your chance for the 100,000-point metabonus, however.

ARMAGEDDON

The first half of Armageddon is made up of 40 groups of enemies, including Space Cats, Vampires, Deathriders, and Masterminds. This is a little like the Enduro Waves, except that the enemies attack in their usual manner rather than drifting aimlessly

through space. Try to recognize the opponents in each group as early as possible, so that you can react to their behavior. Unlike in the Enduro Wave, here the enemies behave like themselves.

The second half of Armageddon is 20 to 25 seconds of intense, fast-paced Planetoid Wave, with more enemies than ever before. You must get through this section on one turn, because each time you start over you'll be back at the beginning of it. If you're down to two or fewer turns, it's a good idea to end your game here and then restart. That way, if you get through Armageddon on your first turn you'll have more turns to continue with after Wave 30.

PARADISE

There are no enemies in this wave, and there is no way to score points. You just fly through space and watch a show. After the show is over, you're awarded 1,000,000 points and three extra turns and sent back to Wave 10.

ELECTRONIC ARTS

A New Software Breed

by Danny Goodman

It is one thing to bemoan the sameness and light-headedness of home computer entertainment software, but quite another to actually do something about it. Judging from its first offerings for the Atari and Apple computers, Electronic Arts, a year-old San Mateo company, is doing something about it.

Electronic Arts is one of the new breed of software firms that acts as publisher for outside design talent. Just as a book publisher prints and distributes books for independent authors, a software publisher takes a product from an independent designer or design group, judges it for marketability, designs the packaging, and distributes it to computer and book stores. Electronic Arts, however, likens itself more to the recording industry. Instead of having editors put the finishing touches on the selling of a program, the company has a talent department staffed by producers who work with the outside talent in developing and marketing the software.

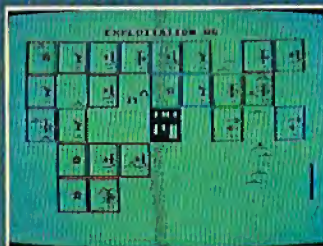
As with a movie or television program, the artist and producer start with story boards—hand-drawn representations of the screen at various points in the game. And, like a record producer with a hot rock group, the software producer is responsible for promoting the software artist. This kind of relationship frees programmers to concentrate on what they do best: program.

PROGRAM CRITERIA

William "Trip" Hawkins, a young but very businesslike co-founder of Electronic Arts, outlined the basic requirements for most of the software that is issued under the EA label. "It must be simple so you can get into it quickly," he said. "It must exploit the capabilities of the computer medium. And it must be deep."

The depth of the activity, as Hawkins mentioned, is perhaps the most striking element of a high percentage of the current titles. For example, let's take a look at a program called M.U.L.E., designed by Ozark Softscape, a group of animation and programming specialists based in the unlikely state of Arkansas.

The letters in the program title stand for Multiple Use Labor Element, which is a robot mule used to develop plots of land on a strange planet settlement. One to four players can participate; those roles left vacant by humans are filled by the computer. Each player, upon being delivered to the colony by a rocket ship, is allotted a starting supply of money and goods (energy and food).



M.U.L.E.
by Ozark Softscape.

In each round players have the chance to claim a parcel of land during the Land

Grant. Three different terrains are available for exploitation: mountains, flatlands and river area. Each has specific characteristics, as in real life, for the production of essential goods. In M.U.L.E. that includes food, energy, and an element called *smithore*. Getting your choice parcel is not easy because all of the players are vying for the most desirable land at the same time. This becomes more of a factor in later stages when available parcels are scarce.

In each round, a player has to buy a mule. This is done in the town, which is the center box on the macro screen. The next screen, a close-up of the town, reveals a corral of mules, three separate outfitters supplying the goods you want to produce on your plot, a land office for selling surplus land, and a pub where you can gamble to win money. The procedure is to move your character within a limited time into the mule corral to buy a mule at current market price (money is automatically subtracted from your total), drag him into one of the outfitters (this cost is also subtracted) and take him out to your plot. The screen returns to the overhead map of the colony. You've got to place your character just right in the plot to properly install your mule—otherwise it runs away, wasting your money and time.

After each player has had a chance to install a mule, the production cycle for this round shows how many units of energy, food, and

smithore were produced. Forces of nature crop up periodically, like pests that eat crops or sunspots that increase energy output, to help keep things unpredictable.

Next comes the auction phase. Just like bringing goods to market, each player has the opportunity to buy particular goods that are running short (mules require energy, and you need food) and to sell surplus (*smithore* is used to build more mules for future exploitations). A colony store





also sets market values for goods based on supply and demand. Each player chooses to be buyer or seller, then tries to get the best deal on the transaction. A player is also subject to unpredictable events, such as having his mule win \$300 in a beauty contest or losing \$450 in an investment on another planet.

Later in the game, (there are 12 cycles in the standard level) all the parcels are owned, so players have to monitor the market prices of various goods and change the production in their plots accordingly to garner the most in goods and services. Sometimes it's best to have a monopoly of a substance. But you are all working together as a colony, so you can't really wipe out a competitor. If the colony fails to produce its minimum, everyone is sent back home to work in a mule factory.

If you believe there is a lesson or two within M.U.L.E., then you're on the same beam as Electronic Arts. Hawkins would be loathe to label the company's software products as educational, but he readily admits that they contain "a melding of education and entertainment."

Citing a parallel outside the computer world as an example of the depth of EA's programs, Hawkins asks, "Have you ever been to Disneyland? Those who look closely at the exhibits and buildings discover incredible attention to detail. The same goes for our software for those who look for it." Nothing illustrates this point better than a new release for the Atari computer, *Murder on the Zinderneuf*.

COMPUTER MURDER

All screen action of this game takes place in 1936 aboard the luxury dirigible, *Zinderneuf*. In this one-player game (although any number of viewers can kibitz) you take the guise of any one of eight detectives, each with his or her own peculiar abilities. Their names, by the way, reveal the tongue-in-cheek fun allowed in programming these games: Lieutenant Cincinnati with the rumpled trenchcoat and car; portly and mustached Achille Merlot; and the scientific Humboldt House whose companion happens to be Dr. Voltmann.



Murder on the Zinderneuf by Free Fall Associates.

The scenario puts your detective on the blimp with 16 passengers over the Atlantic en route to New York. At the opening of the game, one of the 16 has been murdered. By questioning other passengers and searching rooms for clues, you must find the killer before the 12-hour (simulated) flight is completed. Across the six scrolling screens of the passenger cabin, your character bumps into people (for questioning or accusing) and snoops in staterooms hunting for physical clues and the motive. Since each suspect is assigned a permanent room, you get to know whose room has what color carpet, who smokes, what everyone's hair color is, and so on. The manual also gives a long description of each suspect

and the interrelationships among several of them.

Depending on the abilities of your detective and the manner in which questions are asked (you have a choice in your interrogation methodology, like "Blunt, Polite, Familiar, Sympathetic") the suspects provide different answers, sometimes helpful, sometimes not. Even if you think you know who the murderer is, you must have gathered enough evidence before making an accusation that will stick. You really get to know these people after awhile, but they never cease to surprise you with their comments about the others. This is a first rate who-dunnit that changes every time you play. Needless to say, it's not easy juggling all the clues and comments in your head—but that's what makes a good *Zinderneuf* detective.

Upon even closer scrutiny, the player is rewarded with fine elements of design. For example, the staterooms are not merely boxes laid out in a bland floor plan. Each room has a different furniture layout and carpet pattern or color. The characters, although portrayed in stylized graphics, have a unique color/shape combination, in case you have the ability to remember these characteristics more easily than names.

EXPANDING TRADITIONAL GAMES

In another game, called *Archon*, EA's talented Free Fall Associates have added an entirely new dimension to what in all other video renditions becomes a boring chess game. In *Archon*, action takes place on one of

two screens, called *The Board* and *The Battlefield*. In the former, one (against the computer) or two competing players engage in a version of chess, but with surreal character pieces. Moreover, each side's pieces are not the same as the others, although the forces balance out. Each character has different abilities in its board movement and attack characteristics in the second phase of the game.



Archon by Free Fall Associates.

Unlike a normal chess game, a square is not simply won by taking the piece. In *Archon*, you have to win the square the old fashioned way: you earn it. In this case, it is by putting your characters in hand-to-hand or spell-to-spell combat with the opponent's piece in *The Battlefield*. Adding to the challenge is that on *The Board*, the colors of some playfield squares change during the game. Your success in challenging an opponent for a square depends a lot on the color of the square. The goal of the game, by the way, is to have your pieces occupy all five special boxes known as power points.

NOT ALL MIND BOGGERS

The above examples may frighten some potential players who are less interested in games as complicated as these. Electronic Arts has them covered, too.

One hand-eye coordination game is called *Hard Hat Mack*, designed by two high school students, Mike Abbot and Matt Alexander, for the Apple IIe. At first it looks like another "girders" type of game, but there are some fine points built into the game.



Hard Hat Mack by Abbot and Alexander.

Another completely different entertainment activity is Bill Budge's *Pinball Construction Set*. This is one disk that draws on the creative talent of pinball wizards by letting you design an electronic pinball game from a catalog of bumpers, flippers, rails, kickers, and so on. The most detailed graphics (like insignias on bumpers) can be installed anywhere with the help of the magnifying glass symbol. Literally every pixel on the screen is at your disposal. The final board can be saved on your disk for play or editing. You can even "wire" symbols together so that special sequences of targets yield special bonus scores and sound effects. The disk also comes with five preprogrammed boards for immediate play.



Pinball Construction Set by Bill Budge.

Coming soon is a basketball game that is not only fun, but was designed with the help of two acknowledged hoops stars: Julius (Dr. J) Irving and Larry Bird. According to Hawkins, the input of these two pros will make the difference between just another basketball computer game and something that more closely recreates the action on the boards, with more insight than any non-playing programmer could ever provide.

Also in the works is EA software developed by Gahan Wilson. Perhaps best known for his macabre sense of humor and equally eerie cartoon style popularized in *Playboy Magazine*, his contribution will be that of a professional artist who has been given the tools for creating in a brand new medium. Although tight-lipped about what he is working on, Wilson does acknowledge that some high-tech programmers are working on ways of compacting his ideas into programs capable of running on 48K computers like the Apple II+ and Atari.

Electronic Arts is also in the process of producing sophisticated design aids for outside artists and collaborators who may not have the experience or technical knowledge to deal with the details of writing complex computer software. These development systems will be designed for what Electronic Arts calls "target machines," that is, popular computers for which they will publish software. At the moment these include the Apple IIe, disk-based Ataris, Commodore 64, and later this year, the IBM Personal Computer.



SOFTWARE UPDATE

If you're planning on entering the crowded market of home video games, let **Software Update** be your buying guide. This section contains comprehensive reviews of the latest games. The reviews in this issue were written by Mark Brownstein, Robert Bosch, Derek Bosch and Katherine Fried.

★★★★★ terrific
★★★★ great
★★★ good
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APE CRAZE Comm*Data for Commodore 64

★★★

From the name, one expects Ape Craze to be another Donkey Kong rip-off. It isn't. In fact, the only similarities are the gorilla poised at the top of the board and a second screen reminiscent of Nintendo's classic.

The game starts with a set of girders, each one or two levels high. The object is to jump upwards through the structure to a door at the top right of the screen. It's not easy.

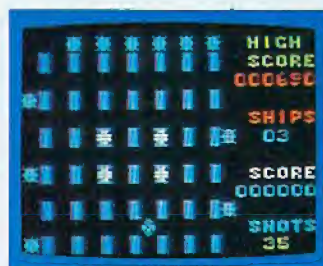
You jump by pressing the trigger. Moving the joystick moves you left or right while jumping. Scattered along the girders are jewels worth extra points if you land on them. From the top

of the screen, the ape slowly rolls down bombs. The bombs, which look like balloons, mean instant death if you touch one. You also die if you fall one level.

The second screen is similar to the one in Donkey Kong. The ape appears at top center, girders are joined by bananas (which disappear as you pass over them), ladders join one level with the next, and bombs roll along the girders. Again, touching a bomb is fatal. So is falling through holes in the structure. Picking up all the bananas completes the screen and returns you to a more difficult version of the first screen.

You begin this one-player game with three lives. Use them up, and the game's over. Ape Craze is really an interesting diversion despite the difficult game play. Making the whole effort worthwhile is the music: an Irish jig and the 1812 Overture.

—MB



CROSSFIRE Sierra-on-Line for Vic-20

★★★★

A very good game, Crossfire has been released on several formats, including a stunning version for the Commodore 64. This adaptation for the Vic-20 captures the game play and basic concept and is as addicting as

those designed for more powerful machinery.

In this game, you are in the middle of a city unable to move to the outside. On the outer edge of this town are aliens trying to destroy you. There are six on the top, and a total of five on either side.

You start the game with three ships and 35 shots. Hiding under a block will protect you on one side only—side to side or top to bottom. The aliens move into position, and squeeze off a volley of shots—top to bottom and side to side. Your job is to shoot the aliens.

Shooting an alien returns it to its starting point on the outside of the city, but in an uglier form. If you hit an alien three times it disappears, not to reappear again. The more aliens you knock out completely, the less crossfire you have to face.

If you don't hit the aliens when they appear, they will chase you. After a very short time, play becomes very hectic with aliens and their shots coming at you from all sides.

If you defeat all the aliens, the next screen is even faster. At 5000 points you get an extra ship. One of the nice features of Crossfire is that it gives you a breather by providing a pause function.

There are a few minor weaknesses. First, the sound isn't exciting. Second, the controller is used for shooting as well as maneuvering the ship. You may end up losing a ship when you intended to blast an alien.

—MB



ESCAPE MCP Comm*Data for Commodore 64

★★★

Escape MCP is billed by its distributors as an "arcade style" game. But in reality, it is and it isn't. The game is not challenging enough to fit into an arcade.

The game has a Tron-like concept. The MCP (Master Control Program) in your computer has gone crazy, and you have to enter the system to straighten it out. The heart of the computer is an increasingly difficult maze. As you work your way through, the MCP (which looks like the letter M with legs) slowly chases you. If he makes contact, you're dead.

You start the game with three lives and two atoms. The atoms temporarily paralyze the ever-pursuing MCP. At each new level, you get an extra one. But you must use the atoms wisely. When the MCP returns, it appears at the bottom of the screen, in some cases in a better position than when it left.

Your man moves slowly. He can't change direction until he runs into the corner of each passage. About the only thing slower than your man is the MCP itself. To beat the MCP, who has the ability to pass through walls,

lure him into a corner and zoom past him.

Escape MCP is a strategy game. Each of the nine screens is more difficult than the one preceding it. Although the action is slow, and the graphics rather sparse, the challenge of the game grows on you. Completing the nine levels of the game may be possible, but it takes a lot of time, patience and practice.

—MB



JAWBREAKER II Sierra-on-Line for Vic-20 ★★

The concept of Jawbreaker II is simple. You control a pair of jaws inside a candy store. The store has five levels, each filled with dots representing candy. Your goal is to eat all the candy. If you move to a corner of the store and pick up a blinking dot, you earn a few moments of superiority over some smiling gumdrops.

The floor (or ceiling, depending on where you are) moves from side to side, opening up at various points to let you travel through the store. Complicating your journey are the gumdrops. Touch one and you've lost one of your three sets of teeth.

To get from one level to the next, you position your jaws

over or under your destination, push up or down, and wait for the gap in the walls to allow your passage. When you've cleared all the candy off the screen, a two-sided toothbrush comes out and cleans your teeth.

Each new screen gives you a different color and dot combination, but this adds nothing to the game's challenge or appeal. Even varying difficulty levels don't pose a threat.

Jawbreaker II was designed for children, but without a challenge this cart has no appeal for any age level.

—MB



KEY QUEST Micro-Ware for Commodore Vic 20 ★★★★

Key Quest is a unique game for the Vic 20 featuring high resolution. The game screen is a maze with occasional spaces holding treasure. Your goal is to pick up enough of the treasure so you can grab a concealed key. Make your way to the door which the key magically opens and the screen scrolls off to the left, introducing the next set of challenges.

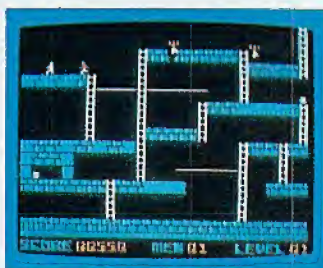
Complicating matters are the evil Gorbs patrolling the corridors of the castle. You can shoot them, but

only from side to side. Your weapon doesn't work in an up or down direction, so you have to be sure a vertical corridor is clear if you want to travel through it.

Hiding in one of the hallways' depressions is safe, but you lose points on the timer for doing so. You can also take advantage of two transporter rooms on the screen, which instantly move you to another area of the castle.

Key Quest is a fun game to play, requires strategy and will provide many hours of entertainment. If you like high resolution strategy games, and a surprisingly intricate playfield, you should like Key Quest.

—MB



LODE RUNNER Broderbund for Apple II ★★★★★

If you desire the ultimate in innovation, Lode Runner is not for you. But if you've been searching for a game that has a multitude of screens, highly professional graphics and challenging yet addictive game play, then Lode Runner is well worth your money. Essentially, it is a superior quality revision of existing games.

As a Galactic Commando, your mission is one of recovery. The evil Bungeling

Empire has issued a series of excessive fast-food taxes depriving its people of a fortune in gold. You must infiltrate each of 150 treasure chambers, dodge the deadly guards through defensive means and retrieve every last chest of gold. You can leap from astounding heights, bound nimbly up and down ladders, and shimmy hand over hand across tightened cables. With your laser drill, you can level layers of fissured brick.

Lode Runner has an abundance of excellent features. Its ten different screens insure variety and lengthy, challenging play. It even comes with an editor that lets you design your own screens. You control the speed and sound and you can start on any level, with any amount of extra men. Unfortunately, only those games that start on level 1 with five men will register on the built-in high score list.

Lode Runner is a game of action and strategy. You hold sole responsibility for your demise; there are no "fluke" deaths that will have you pounding the keyboard in anger. Controlling your man, whether it be with a joystick or keyboard, is straightforward and is enjoyable at any skill level. This is truly a great game.

—RB, KF, DB

PEGASUS ODYSSEY Comm*Data for Commodore 64 ★★

The action in Pegasus Odyssey takes place in a nicely drawn landscape. A volcano



glows in the foreground, a range of mountains rises up behind the volcano and an opening at the rear of the range is home base for a bunch of flying bats.

The object of this one or two-player game is to fly Pegasus, the winged horse, above the bats emerging slowly from their cave. Touching the bats turns them into eggs, which then drop to the ground. When they finally come to rest, Pegasus must walk over and step on them. That's it for game play.

Other aspects make the game more interesting. If the bats fall on you, you lose your steed. Move the joystick forward, and the volcano ejects another. Leave the eggs on the ground too long and a new bat hatches and chases you.

Controlling your horse leaves something to be desired. To make him fly, push the trigger button. The faster you push, the quicker he flaps his wings, and the higher he flies. To descend, stop pressing the trigger and he slowly glides to the ground. If you fly too high too fast, he'll bounce down from the top of the screen.

Pegasus Odyssey has ten levels of difficulty. On the higher levels, the action is faster. Aside from a well drawn, but rather dull landscape, Pegasus Odyssey doesn't have much going for it.

—MB



PREDATOR **HES for Vic-20**

★★★★

Predator is a good-looking game with a better than average challenge. It's a battle of the birds, somewhat similar to Joust.

The object of Predator is to destroy the enemy birds or capture their eggs as quickly as possible. A bonus timer—in the form of a shedding tree—backdrops the action. At the bottom of the field, a mutating worm is stalking the eggs as well.

On early levels, it is safest to stay on the surface, shooting at the eggs as they hatch. You lose bonus points, but at least you keep your bird alive. On higher levels, keeping in flight is important. To fly, move your joystick up and down; the quicker the flapping of the wings, the higher the bird flies.

Graphics and sound are consistently well done throughout the game, and with 99 difficulty levels, the challenge of the game seems unlimited.

—MB

SEA DRAGON **Adventure International** **for Apple II**

★★★★

Playing Sea Dragon is quite an adventure. You must expertly pilot a highly advanced submarine through winding, hazard-laden tunnels. Survival entails the cold and mechanical obliteration of various undersea ene-



mies. Your ultimate quest is to valiantly rescue a dragon from its underwater prison cell. You can almost breathe the murky atmosphere of this watery world.

Laser walls, gun turrets, sea fleas, eels, and mines are among the obstacles you encounter in the narrow, serpentine tunnels. Fortunately, your ship is armed with an inexhaustible supply of torpedoes and a sonic deflector, which can destroy every enemy on the screen. But this deflector has two drawbacks: it uses a great deal of your precious air supply; and you earn no points for killing enemies with it.

Upon completing the tunnels, you enter the dragon's cave. Here you must destroy the serpent's brick cage, taking care not to hit the creature itself. If you free the dragon, your air supply is replenished.

Sea Dragon's action is slow, but necessarily so; there are hoards of dangers that can be avoided only with strategy and precision control. The sound, though unique and skillfully constructed, verges upon irritating. The graphics are adequate.

Sea Dragon's appeal is twofold. Strategy is a necessity and the multiple objectives of attaining high scores and reaching new depths of the caverns make this one-player game twice as challenging.

—RB, KF, DB



SUB HUNT **Esoterica for TI 99-4/A**

★

Esoterica, Ltd., has its roots in the old Astrocade support business. It began by providing computer games in Basic on cassette tape for loading into that popular system, but now has diversified its efforts. Sub Hunt is one of a series of programs written for the TI 99-4/A. In order to load the game, you must have an extended Basic cart, and a suitable data recorder since the game comes on a cassette.

Sub Hunt is very much like many earlier Astrocade games. It is slow with boxy graphics and little else going for it. In this two-player game, you fly your plane over the ocean and drop bombs on submarines scrolling across the screen, below the surface. You get 15 bombs per round. A timer runs when you're not dropping bombs.

Sub Hunt may have been a good game four or five years ago. With the TI's excellent graphics capabilities and the sophistication of the current market, however, little more than its immediate availability makes this slow game worth playing.

Part of the problem lies with Texas Instruments and its tight control of instructions for its GROM (graphics read only memory) chip. This limits the potential of third party programmers, as evidenced by Sub Hunt.

—MB



This Christmas, Atari and Commodore* owners will go out of their minds.

It'll take about 30 seconds.

Because once you boot a Datamost game on your Atari home computer, or your Commodore 64, you'll come face to screen with the most mind-blasting games ever.

And what better time to go out of your mind than Christmas?

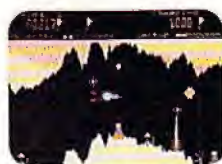
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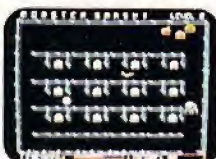
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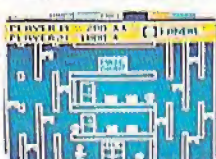
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STARMASTER

OFFICIAL AIRFORCE STRATEGY

by Frank Walters

As an Air Force fighter pilot for 20 years, I was fortunate enough to play some of the most exciting video games ever invented: F-86's, F-102's and F-106's. The right joystick operates the fighter, the left joystick works the radar and infrared systems while another lever on the far left is used to operate thrust. Various computers work in conjunction with the radar to give video displays and messages which must be responded to with the correct joystick and many other controls and switches. The whole thing is recorded on film and played back at the end of the mission to confirm your score. Believe me, the competition is fierce and in fact most people play as if their lives depend on it.

When I first saw Starmaster in action, I immediately wanted to get back in the cockpit and have a go. Was I surprised to find the response of the joystick was almost exactly like a real fighter. In fact, I think Starmaster flies better than the F-106 flight simulator, which I have flown for over 600 hours. Star Raiders, by comparison, has spastic joystick response, totally unrealistic.

Since my entire career was devoted to air defense I could never be convinced that I had just won a game of Starmaster after losing only one starbase. Through trial and error I devised a method of saving the starbases at the Wing Commander level, even though

at that time I couldn't shoot more than 12 to 14 enemy fighters before docking for refueling. The strategy was similar to the plan I later developed for the Starmaster level and which I am revealing for the first time in this article.

By following the sequencing and timing strategy as presented, the fairly experienced Starmaster player will be able to successfully defend all four starbases in the level 4 or Starmaster game. The intermediate level player might be surprised to find that you don't have to be a real whiz-bang shooter to accomplish this feat. In fact, I have some bad news for whiz-kids you're going to learn to slow down at the beginning of the game and sacrifice about ten stardates over your usual time in order to save the starbases. The 500 extra points make it worthwhile.

SCORING

Your mission evaluation score is not displayed until after the game is over, when you select the galactic map by moving the color/b & w switch. It is computed in the following manner:

- +100 points for each enemy starfighter destroyed;
- 500 points for each starbase destroyed by enemy;
- 100 points for each docking with a starbase for refueling;
- 1 point for each stardate elapsed during mission (1

stardate is equivalent to four seconds of game play).

The above points are added to or deducted from a base score. Regardless of game level, if the mission ends in failure by running out of energy or being destroyed by enemy fire or meteor hits, the base score is 2000 points. If you are successful in destroying all enemy fighters, the base score will vary with the game level you are playing. See the chart at the bottom of the page.

Negative scores cannot be displayed but will show as double zero followed by the correct last two digits of your score (S:0042). There are two other scoring anomalies. If you destroy all 31 fighters at the Starmaster level and leave three starbases remaining, your final score will include 100 extra points for no apparent reason. In the same game, if all four starbases remain, your final score will be displayed as if it were a negative score: 00 followed by the correct last two digits, regardless of the number of dockings made. You must convert this to the correct score by deducting the number of stardates shown and 100 points per docking from 10,000 (6900 + 3100). I spent considerable effort last year convincing Activision to investigate and

acknowledge this error in the cartridge program.

TIMING

The last two digits of the energy-remaining figure is a much better clock/timer than the stardate because it is accurate to within one second and is available on all screens. Starting at 99, these digits decrease at the rate of one per second. Although they spin rapidly during warp travel, they will stop spinning 13 digits less than when you started warp with the fire button. Warp travel takes 13 seconds, regardless of distance traveled. All other energy is expended in exact increments of 100 or more:

- Each laser shot—100
- Hit by enemy fire or meteor—100 to 500
- Warp travel—100 per sector traveled plus 13 for time consumed; 200 per sector when warp engines are damaged.
- Some important times that are valuable to remember:
 - Warp and docking—20 seconds (13 + 7)
 - Warp and first fighter appears on screen—16 seconds (13 + 3)
 - Second fighter appears after first destroyed—4 seconds
 - Third fighter appears after second destroyed—4 seconds.

Game Level	Base Score	Enemy Fighters
E: Ensign	3100	9
L: Leader	4300	17
W: Wing Commander	5700	23
S: Starmaster	6900	31



Fig. 1 Galactic map.

GALACTIC MAP

The galactic map in figure 1 will appear on the screen when you select game 4 on the game select switch. The four starbase symbols are shown near each corner, the enemy fighter locations are indicated by the small dots on this 6 x 6 sector grid and your own starfighter location is indicated by the smaller marker (+) just to the right of the lower right starbase. For positive sector identification in this article we will use a simple letter/number code indicated in figure 2. The present location of your fighter would be identified using this code as sector E6.

	1	2	3	4	5	6
A						
B		→				→
C						
D						
E					→	+
F		→				

Fig. 2 Sector identification code.

STARBASE UNDER ATTACK

The first starbase under primary attack will always be the one at lower right. Once it is destroyed, the enemy will then concentrate on the upper left starbase by moving diagonally toward it until it is destroyed. Enemy movement is then vertical down

to the base at lower left and the final target is upper right with a diagonal attack. There are a number of factors that determine when a starbase under attack will be destroyed:

- (1) Game level selected. You would have to fall asleep while playing Ensign to lose a starbase at that level. At Starmaster level the loss of one starbase is inevitable unless you use the defensive strategy described herein.
- (2) Number of vulnerable sectors occupied by enemy fighters. The sectors that make a starbase vulnerable are those adjacent to the starbase horizontally, vertically or diagonally.
- (3) Number of enemy fighters in vulnerable sectors.
- (4) Total number of enemy fighters remaining in the galaxy.
- (5) Elapsed time since beginning of mission.

Your objective in a successful defense is to decrease (2) early and then work on (3) while preventing other fighters from replacing those destroyed in vulnerable sectors. If you succeed in this then it will extend the time available to further reduce enemy numbers until all sectors around the starbase have been cleared out. The lower the numbers in (1) through (4) above results in a higher number for (5) when the starbase will blow up.

STARBASE DEFENSE STRATEGY

Hit the reset switch to start the action and move the color/b & w switch to select

the galactic map. Using the joystick, move your duplicate marker (+) up three sectors and left two sectors to B4—do not warp (Fig. 3). The three fighters diagonally above you in A3 are scheduled to move into B4 at E:9994 but will not make that move if your marker is in that sector at that time. They will be delayed and have to wait until it is their turn to move at a later time.



Fig. 3 Wait until 93, move right one and block.



Fig. 4 Wait until the fighters move at 88.

At E:9993 move your marker right one sector to B5—do not warp (Fig. 4). The three fighters in B5 will not move as long as your marker is in the same sector with them. Their first scheduled move is at 88 and when you block that they can't move again until 34, which we are going to block later.

At E:9988 move marker down three sectors to F5 and warp (Fig. 5). Caution: don't anticipate the clock, wait about half a second on 88 before moving out of the blocking sector. If you

move too soon, the three fighters may move down to C6 and you will have to reset and start over. When you finish warping, the energy will read 74. At 71 the first fighter will appear on the screen. You have until 50 to shoot all three bogies and then select the map again.



Fig. 5 Action!

Move right one sector to F6 (Fig. 6) and at exactly 49 start warp with the fire button. Don't warp early because your present location marker (+) at F5 is blocking a move by the fighters in F4. When you vacate F5 by warping at 49, the fighters at E4 will move into the empty sector, thereby leaving E4 vacant for the remainder of the mission without firing a shot. The fighters in F3 will be blocked from attacking the starbase also. During this warp travel you must select the galactic map with the color switch so that it will appear automatically at the end of the warp.



Fig. 6 At 49, warp and hit the color switch.

When the audio tone begins increasing in pitch dur-

ing the warp, you are now safe from meteors and can hold the joystick in a diving (forward) position for the remainder of the warp. When the map appears (at 36) your marker will already be moving up the right side. Stop the marker three sectors up in C6, just below the starbase (Fig. 7). Do not warp again, this is a very short block.



Fig. 7 At exactly 34, switch color and shoot two.

At exactly 34, move the color switch. You will return to the battle screen in sector F6. At 33 the first fighter will appear. You must shoot two of the three fighters before 20. As soon as the second fighter has been destroyed select the map.



Fig. 8 Shoot two more.

Move up two spaces to D6 (Fig. 8). The three fighters in D6 are scheduled to move into E6 at 19 and so you must reach them before that move or you will lose the starbase later on. Warp as soon as your marker is in D6 with the three fighters. You have now sequenced all the enemy fighters correctly for a successful defense of the lower right starbase. Shoot only two of the three fighters in D6. While you are battling the fighters, the solo enemy in D5 will move

diagonally below your present sector to E6, leaving D5 vacant and completing all movement of enemy fighters for the remainder of the mission. After shooting the second fighter, select the map.



Fig. 9 Move left two, shoot three.

Move left two sectors to D4 and warp (Fig. 9). Shoot all three and select the map.



Fig. 10 Right one, down two, shoot three.

Move right one and down two to F5 and warp (Fig. 10). Shoot all three and select the map. The rest are like shooting ducks in a row.



Fig. 11 The rest are like sitting ducks.

Move left one and warp. Shoot all three and select the map.



Fig. 12 No damage.

Move left one (F3) and warp. Shoot all three and select the map.



Fig. 13 Back them to the corner.

Move right three sectors to the corner (F6, Fig. 13), warp and shoot the remaining fighter. If you haven't destroyed this fighter by 16 (stardate 70) the starbase will be destroyed. Select the map.



Fig. 14 Be careful. You may lose a starbase.

Move up one to E6 and warp (Fig. 14). At this point you may possibly lose the starbase. If you had taken a little too long clearing out the sectors at F5 and F4, the starbase might blow up early around 13 (stardate 71). Most times it won't blow up so just shoot the single fighter and select the map.

Move up one sector to D6 and warp. Shoot this fighter and you have cleared all sectors around the starbase so it's temporarily safe from attack. This is your first opportunity to refuel. If you have plenty of energy to shoot three more fighters just move up one sector and do it. Remember you will lose time and points if you have to break off for docking before all three are killed. More importantly, the remaining

fighters may attack your lower starbase while you are docking.



Fig. 15 "I don't believe this!"

Move up two sectors to the starbase at B6. Use the following guide to prevent the fighters in C6 from moving down to D6 and attacking the starbase while you are warping and docking. The fighters have a scheduled move at 57. If your energy clock reads:

79 or higher—warp immediately and dock. Move down one sector after docking and the fighters will still be in C6.



Fig. 16 Starbase docking.

78 to 71—warp immediately and select the color switch. At the end of warp the map will reappear. Move down one space to block until 56 and use the color switch again to complete docking. Then move down one sector.

70 or lower—warp until 56, then warp and dock. The enemy won't move again until 03 on the old energy clock. After docking the energy clock is no longer valid for total elapsed time since it is reset to 99 at some random point in the mission. It's no longer needed for that purpose.



Fig. 17 A pit stop.

After destroying the enemy in C6, move up one and left one sector to B5, warp and shoot all three. Docking just before or right after this move is reasonably safe.



Fig. 18 Voila!

Move left four and down four to F1 and warp. Shoot all three enemies and the mission is completed. Remember that this warp uses 813 units of energy and if you have not docked once yet, do a little arithmetic before making the big jump.

Select the map with the color switch. You may not have realized it yet but moving the difficulty switch has the same effect as moving the color/b & w switch. Now read your funny score and convert it to a correct score as explained under "Scoring." An abbreviated Mission 4 checklist is provided to assist you or your co-pilot during the actual mission. This system has worked for me on hundreds of missions and the only uncertainty I have about it is that the starbase sometimes blows up at around stardate 71 while engaging the single fighter in E6.

TACTICAL TIPS

While this article was written to provide overall strategy I would feel slightly remiss if I did not include some helpful advice to enable the less experienced player to successfully complete a perfect defensive mission.

When starting the game, the stardate will change from 0000 to 0001 at a random time on the energy clock: 98, 97, 96 or 95. If the stardate changes to 0001 at 98 or 97, I reset. If it remains 0000 at 97, I continue with the mission. This procedure could possibly save you one point in your final score.

Don't sit too close to the screen. You must observe the entire screen while patrolling an enemy sector in order to detect him as soon as he appears.

Laser damage can be disastrous if it occurs prior to clearing all the fighters from around the starbase. Unless you are way ahead on time you will lose the starbase; I usually just reset and start over.

Warp engine damage can be just as bad as laser damage. If it happens early you have little hope of shooting the first 22 fighters before docking. However if you don't have far to go before it's safe to dock, it can just be an annoyance.

Shield damage is not as serious as warp engine damage when your mission is defense of the starbase. Shields or no shields, you're still trying to avoid taking hits because of energy loss. True, you are sticking your neck out but no guts, no glory. Just be extra cautious and don't take the high risk shots. I

have had far more successful missions with damage to shields than I have with warp engine damage. Just be sure to dock at the first safe point in the mission. If shields are damaged after the first docking, I usually press on but if you elect to dock, finish shooting the remaining fighters in your present sector first.

Radar damage is of no consequence except for the energy loss accompanying the hit. Since you know exactly when and where to move, just follow the flight plan precisely and you'll hit a red sector every time.

Use very light pressure on the joystick because heavy pressure doesn't turn you any faster and with a light touch it is much easier to make a quick direction change. Release all pressure on the joystick just before warping in order to avoid warping into the wrong sector.

To avoid meteors during game level E, L or W just hold a steady climb (joystick aft) during warp travel. At the Starmaster level, the technique I use is to press the button and then start a climbing right turn (aft/right diagonal). If you see a meteor, try to steer away but remember which quadrant of the screen it originated from, then change direction if necessary to steer in the opposite quadrant for the remainder of that warp. Meteors tend to travel in groups. Example: While in my right climbing turn, I see a meteor appear

in the upper left part of the screen and slide off the left edge. I immediately change to a diving right turn which aims me at the lower right section, diagonally opposite from where the first meteor originated. If a meteor originates in the lower right quadrant, I switch to a climbing left turn.

Use single shots only. Rapid fire consumes energy too rapidly. Fire just before the target reaches center of sight because it takes almost half a second for your shot to reach the target.

When waiting for the target to appear leave the joystick in neutral so it will show up on screen right on time: three seconds after a warp or four seconds after hitting the previous fighter. If you play with the stick you may cause it to be off the screen and when it appears later it frequently takes a quick shot at you for damage.

As soon as you spot the enemy, steer directly towards him but don't shoot unless you have a clean shot or he shoots first. Go for his fire with your first shot and get him with your second or third before he can shoot again.

Occasionally the enemy fighter is hidden behind his own fire. In this case always aim for the 12 o'clock position on his fireball, or you might get hit twice.

Good luck on future missions and keep the checklist handy until you have learned the flight plan.

THE HOME FRONT

The range of home video cartridges is constantly expanding, and this month's Home Front will give you an overview of some of the newest games. The reviewers for this issue are Mark Brownstein, Marty Schamus, Mike Gussin and Joanne Zangrilli. "Classic Cartridges," an index recapping the games which earned a five-star rating in past reviews is, as usual, featured at the end of this section.



BLUEPRINT
CBS for Atari 2600

★★
Here's a game with a good concept, several levels of difficulty and above-average graphics. But in spite of all these pluses, Blueprint lacks the holding power to sustain your interest.

As the hero out to save Daisy Damsel from Ollie Ogre, you must build a contraption to stop the villain in

his tracks. To do this you first have to find the various contraption parts which Ollie has hidden in ten neighborhood houses. This is not an easy task, because the parts move quickly and are randomly placed. If you visit the wrong house, you will find a hot little bomb in your hands. Move quickly and deposit it in the pit before it explodes or else you lose a life to the tune of taps.

Adding to the action is Fuzzy Wuzzy who carries a torch for Daisy. Avoid him at all costs unless you want to forfeit a life. The hero has a speed button that will get him out of tight squeezes, but it has its limits. As the game progresses from round to round the number of pieces hidden increases and entrance ways decrease and change randomly. Complete eight levels and you will spell out a secret password worth a bonus.

All in all, Blueprint is quite tiresome and repetitious and should have a challenge greater than finding parts of the contraption hidden in all those cute little houses.

—MS



THE DREADNAUGHT FACTOR
Activision for Intellivision
★★★★

Activision's first attempt at a space-oriented game for Intellivision is a sure winner.

Imagine yourself deep in space, commanding a squadron of ten of the finest battlecraft in the galaxy. Your mission is to defend your planet Terra against an attacking fleet of Zorbian dreadnaught spacecraft which vary in shape and size.

You can select one of seven skill levels ranging from a practice level to an all-out impossible assault of 100 dreadnaughts. The level also sets the enemy's distance from Terra. Your weapons include laser bolts and strontium bombs. The dreadnaughts respond with mega-missiles and dual rockets.

The graphics are sensational and from the hum of the engines to the various explosions the sounds are awesome. With each pass through, your enemy gets closer and closer. You can slow down their approach by bombing the four engines that power the behemoth battlecraft as quickly as possible. Eliminating bridges will cut down the enemy firing rate by 50 percent.

Once you have destroyed the energy vents and watched the vaporization and spectacular explosion of the battlecraft, you go on to fight a tougher enemy. But if you lose all of your ships or let the dreadnaughts get too close to Terra, you'll witness a missile launch that will rain

destruction upon your peace-loving planet.

—MS



FATHOM
Imagic for Atari 2600

★★★★
In recent years we have been overwhelmed with games asking us to conquer the ocean's depths or defend the upper atmosphere. Now designer Rob Fulop has created an ingenious way in which to kill both these birds (in this case, one dolphin and one seagull) with a joystick and an 8K memory cartridge.

The objective is simple. You must scour the hemisphere for three missing pieces of Neptune's trident in order to rescue his daughter who is imprisoned on the ocean floor. You begin as a dolphin seeking a particular starfish. Touch your find and either a piece of the trident will appear or you become a seagull and begin exploring the skies. As a bird, your objectives are the same, but now you're navigating clouds and stars. The faster you push the fire button, the faster and higher you fly.

Preventing the rescue are octopuses, seaweed, blackbirds, gray clouds and volcanoes. To make matters worse, a timer is counting the seconds. Valuable time is lost when you meet

one of these obstacles, but you can gain seconds by touching sea horses or pink clouds.

There are 128 screens to explore in this adventure game which features superb graphics, rich and vibrant colors, fluid movement and creates one of the best cartoon-like effects yet.

—MS



FROGGER
Starpark for Atari 2600
with Supercharger

★★★★

Press the start or fire button on this supercharged Frogger and you are immediately dazzled by the superb color and animation emanating from your 2600. The game looks and sounds great. You aren't stuck with one theme, either. As you play, the music keeps changing.

Game play and action are quite faithful to the arcade original. Starpark has done its job quite well, incorporating most of the features of the arcade classic, including the alligators, the fly bonus, diving turtles, snakes and otters.

But trying to put so much into the limited available memory (even with the increase the Supercharger offers) didn't come without some costs. The first drawback is the blinking in the top half of the screen. Once

you hop onto a log or turtle, the image blinks, and the display alternately produces a picture of the frog and the log. This could be confusing.

The second weakness sometimes turns into an advantage. If you hop the frog into water, you're supposed to lose your frog. But this program can't recognize the spaces between the long, broken logs. If you jump between the small cracks, your frog is just as safe as if he'd landed on a log.

In this version of Frogger you start with seven frogs. As in the arcades, a timer at the bottom is constantly running.

Aside from the blinking screen, Frogger is a very good adaptation of the arcade hit. It is an even greater value because it costs less than the cartridge, and comes with previews of other Starpark games.

—MB

LONDON BLITZ

Avalon Hill for
Atari 2600

★★★★

WALL BALL
Avalon Hill for
Atari 2600

★★★

In its first attempt in the VCS market, Avalon Hill, known for outstanding strategy board games, has given us a mixed bag of goodies in an attempt to appeal to all interests.

In London Blitz you are assigned to the British Army Royal Engineers dur-

ing World War II. You must keep your sector free by dismantling unexploded German bombs. With an aerial map of your sector you determine your position and that of the bombs.



Switching to the street scene, you then advance in the direction of the bomb. This phase takes a bit of practice, because the joysticks are very sensitive and the slightest extra pressure will send you in the wrong direction. Graphics are outstanding and strategy is the name of the game. Find the bomb and sit on the edge of your seat as you try to break the code before all hell breaks loose.



Wall Ball is a three-dimensional contest reminiscent of Breakout. The action takes place on a racquetball court. It's fast, and requires good hand/eye coordination before you can really get involved. An excellent challenge.

—MS

MOGUL MANIAC
(with Joyboard
Controller)
Amiga for Atari 2600
★★★★



What's a joyboard controller? It happens to be a very innovative stand-on platform that measures 14" x 12" and is designed to hold the weight of a player up to 250 pounds. The need for a traditional joystick is eliminated almost entirely and you certainly have the feeling of being in the middle of the action. There's an extra port right on the joyboard for adding a firebutton.

Included in the package is the game Mogul Maniac. (For you non-skiers, a mogul is a free-style event combining speed and jumping.) You race against time in two heats on a choice of nine courses. Graphics are at a bare minimum with the emphasis on game play.

Now, if you really want to have some fun with the joyboard, forget about Mogul Maniac and pull out those forgotten cartridges that have lost their appeal. Try guiding Pac-Man around just with body motion, or avoiding the attackers in Space Invaders by shifting your hips.

For the ultimate challenge, use it with Activision's Decathlon. The faster you run in place, the faster the runner on the screen will move. You'll need a towel to dry off the sweat after all ten events.

The joyboard is more than a gimmick and hopefully Amiga will soon offer more games that demonstrate its full capabilities.

—MS



MOONSWEeper Imagic for Atari 2600

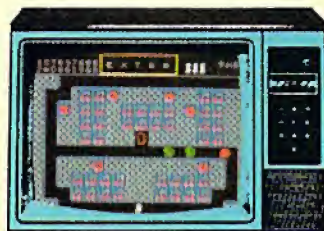
★★★★

In this stunning one- or two-player game you are the pilot of the U.S.S. Moon-sweeper, rescuing miners stranded on the moons in star quadrant Jupiter. To reach the various moons you have to travel through space (horizontally across the bottom of the screen) avoiding or destroying aurora flares, space bullets and photon torches.

To land you have to touch an orbiting blue, green, yellow or red moon. Each color represents the rescue difficulty level. In the second phase you skim vertically over the moon's surface as you hunt six miners with your radar spotter. You must avoid or destroy towers, launcher ships, surface destroyers and missiles. Of course, you have your own arsenal and can regulate the speed of the moving landscape. To collect bonus points, destroy the satellites that periodically cross the screen.

Stunning colors, great sounds, detailed graphics, as well as a terrific challenge make Moonsweeper a wonderful addition to your video game library.

—MS



MR. DO!

Coleco for Colecovision

★★★★

Coleco does Mr. Do! proud in its translation of the game for the home screen. A close relative of Dig-Dug, the game has the bright colors, great graphics, and cheerful music that have become Coleco trademarks. The bonus is being able to slow the action down to level one or two and concentrate on strategy instead of simply running for your life. With ten different screens, two ways to kill bad guys, and the chance to earn extra Mr. Do's, the number of strategies possible are enough to keep the game interesting indefinitely.

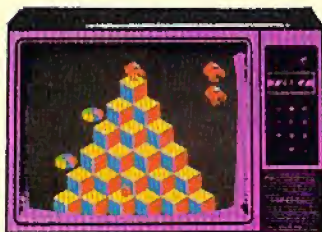
The action takes place in Mr. Do's cherry orchard. Bad guys come out in the middle of the screen; Mr. Do gets a head start at the bottom. There are four ways to clear a screen: picking all the cherries; killing all the bad guys by bonking them with apples or shooting them with Mr. Do's magic ball; killing all five alpha-monsters to spell "Extra" and win a bonus Mr. Do; and grabbing the diamond that occasionally appears when an apple is pushed from its spot.

The safest plan is to begin by eating cherries and nabbing the bad guys when you get the chance. The way to the biggest scores is trapping the bad guys where they can be bonked two and three at a time, and stockpiling extra Mr. Do's in the early rounds

when the action is slowest. There are plenty of chances to win the extras. The alpha-monster sends out a letter every time the score reaches a multiple of 10,000 points. The diamond, which appears only once each seven or eight screens, is worth a whopping 10,000 points.

A versatile game that is fun for the casual player and an endless challenge to the strategist, Mr. Do! does it all.

—JZ



Q*BERT

Parker Bros. for Atari 2600

★★★★

Let's face it: the 2600 has its limitations. Missing from this version of Q*Bert are Ugg, Wrong Way and Slick as well as the characters' voices. There are also fewer discs and less levels to conquer. And Q*Bert looks as though he has been on a diet.

But let's give Parker Bros. their due—we have here a wonderful adaptation of this unique arcade game. Q*Bert, a lovable little creature with a nose that must be seen to be believed, hops around a pyramid of 21 cubes, changing the designated colors at least once with each rack, while avoiding the edge and a host of enemies. The controls are not simple, but once you've mastered them, you're set to begin.

Depending on the level and round, you have up to five discs. Hopping on one of them will transport you to

the top of the pyramid and out of trouble. Farther in the contest you will have to contend with touching each cube twice, invisible cubes and many other surprises.

—MS



SUPER ACTION BASEBALL

Coleco for Colecovision

★★★★

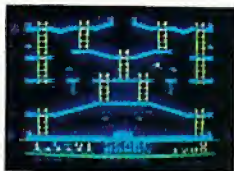
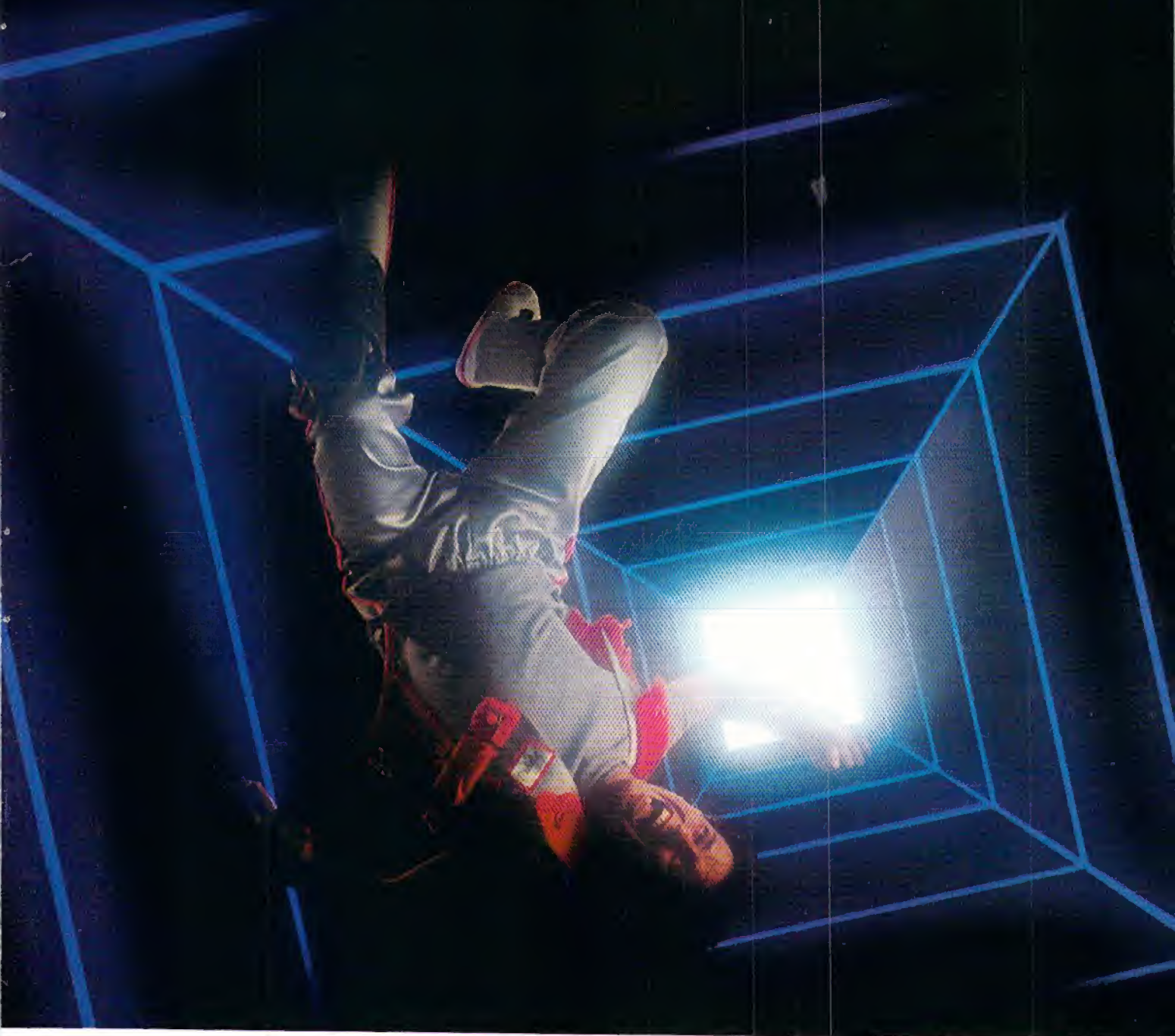
The smell of peanuts and hot dogs are in the air as the final strains of the national anthem come through your TV via Coleco's Super Action Baseball, the latest entry in the video sports field. This split-screen bonanza comes with two super pistol-gripped controllers that incorporate a red ball joystick, keypad, roller and four color-coordinated action buttons. Of course, the controllers can be used on all Colecovision games.

Your pitcher has the option of throwing four different pitches at four speeds and can aim either high, low, inside or outside. Fielding and throwing are controlled by eight color-coordinated fielders (the pitcher does not field), the joystick and action buttons.

This cartridge should have earned five stars, but Coleco made the unforgivable error of eliminating a fundamental part of the game: bunting. This is probably due to the inability of the pitcher to field the ball. Besides some other minor omissions, however, Super Action Baseball is a must for any sport enthusiast.

—MS

JUMPMAN'S A GREAT GAME. BUT YOU'VE GOT TO WATCH YOUR STEP.



Meet the Alienators. A fiendish bunch who've planted bombs throughout your Jupiter Command Headquarters.

Your job? Use your lightning speed to scale ladders, scurry across girders, climb ropes and race through 30 levels to defuse the bombs before they go off.

That's the kind of hot, non-stop action we've packed into the award-winning,* best-selling Jumpman,* and into Jumpman Jr.,* our new cartridge version with 12 all-new, different and exciting screens.

Both games force you to make tough choices.

Should you avoid that Alienator, climb to the top

and try to work your way down, or try to hurdle him and defuse the bombs closest to you before they go off?

If you move fast you'll earn extra lives.

But if you're not careful, it's a long way down.

So jump to it. And find out why Jumpman and Jumpman Jr. are on a level all their own.

One to four players; 8 speeds; joystick control. Jumpman has 30 screens. Jumpman Jr. has 12 screens.

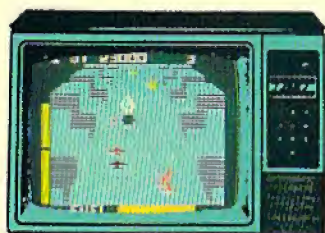


EPYX
COMPUTER SOFTWARE

STRATEGY GAMES FOR THE ACTION-GAME PLAYER.



*1983 C.E.S. award winner.



ZAXXON Coleco for Intellivision

★
For those who felt Coleco's version of Donkey Kong for the Intellivision was anything more than a disaster, this home adaptation of Zaxxon will not be a disappointment. But for everyone else, this game is Zaxxon in name only. Gone are the terrific three-dimensional graphics and action you saw in the arcade, features which are rumored to be in the upcoming version for Colecovision owners.

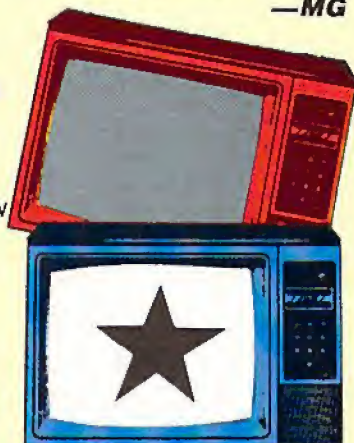
This Zaxxon does not have the original's detailed background of an alien space fortress or the slick maneuvering capability. Here you have a rolling treadmill with a variety of new, simpler objects to shoot. Gone are the defensive missiles rising up from their silos. Instead of moving targets such as mobots, dodger guns and enemy ships dot the "landscape" as you fly over. Some original targets remain, however, like the highscoring radar towers and the enemy fighters in deep space.

There are four versions of the game for one or two players, but the only difference between them is the speed of your fighter and the amount of enemy fire on the higher levels of difficulty. As in the arcade game, you begin by flying over a high wall and down onto the surface, shooting targets for points and fuel tanks for extra fuel. There still are low walls and electronic fences to pass be-

fore you hit open space and meet an enemy fighter squadron. Survive and you can attack another alien asteroid and the robot Zaxxon.

Game play is similar to the arcade version. Don't expect this one to have anything similar to the graphics, color or excitement of the original, however. If you do, you'll be very disappointed.

—MG



CLASSIC CARTRIDGES

From past reviews of home video game cartridges, JoyStik® offers a summary of the best of what's available. This directory is a regular feature in each issue. All software listed earned a ★★★★★ (terrific) evaluation.

CENTIPEDE Atari, Inc. for Atari 5200

The arcade's crawly characters encore in this demanding version.

CONQUEST OF THE WORLD N.A.P. Co. for Odyssey2

Fascinating war game combines board and video action.

DONKEY KONG Coleco, Inc. for Colecovision

Stunning version of the arcade classic.

FROGGER Parker Bros., Inc. for Atari 2600

Excellent music and graphics in this arcade counterpart.

GREAT WALL ST. FORTUNE HUNT N.A.P. Co. for Odyssey2

Computerized investment transactions for amateur financiers.

HAPPY TRAILS Activision for Intellivision

Innovative maze game pits good against evil in the Old West.

LOOPING Coleco, Inc. for Colecovision

Guide your plane through rooms of rockets, balloons and other obstacles.

MINER 2049er Big Five Software for Atari 5200 MicroFun for Colecovision

Good graphics and difficult screens set the action for Bounty Bob caught in a cavern.

MS. PAC-MAN Atari, Inc. for Atari 2600

Mazes, traps and tunnels challenge home video's "Woman of the Year."

PEPPER II Coleco, Inc. for Colecovision

Sets of roving eyes chase Pepper through this challenging maze game.

PHASER PATROL Arcadia, Inc. for Atari 2600

Detailed onscreen instrument panel monitors a battle against the aliens.

QUEST FOR THE RINGS N.A.P. Co. for Odyssey2

Players work to recover ten rings of power. Good graphics.

RIDDLE OF THE SPHINX Imagic, Inc. for Atari 2600

Elaborate quest/adventure for ancient Egyptian treasures.

RIVER RAID Activision, Inc. for Atari 2600

Convincing graphics and audio backdrop a jet fighter on mission.

SEAQUEST Activision for Atari 2600

Rescue stranded divers in a challenging race against time.

SPACE PANIC Coleco, Inc. for Colecovision

Spacemen battle monsters on four levels of challenging grids. Excellent sound.

STAR RAIDERS Atari, Inc. for Atari 2600

Hyperwarp between sectors in classic space/combat challenge.

SWORDS & SERPENTS Imagic, Inc. for Intellivision

Enchanted swords and medieval wizards guide you through this difficult game.

TROPICAL TROUBLE Imagic, Inc. for Intellivision

Detailed graphics add to the excitement on a south seas island.

WELCOME TO APSHAI. YOU'RE JUST IN TIME FOR LUNCH.



Gateway has eight levels. And over 400 dark, nasty chambers to explore. And because it's joystick controlled, you'll have to move faster than ever. But first you'll have to consider your strategy.

Boy, have you taken a wrong turn. One moment you're gathering treasure and the next you're being eyed like a side of beef.

You're in the Gateway to Apshai™. The new cart-

ridge version of the Computer Game of the Year,* Temple of Apshai.

Is it treasure you're after? Or glory? You'll live longer if you're greedy, but slaying monsters racks up a higher score.

The Apshai series is the standard by which all other adventure games are judged. And novices will not survive.

They'll be eaten.

One player; Temple of Apshai, disk/cassette; Gateway to Apshai, cartridge, joystick control.



EPYX
COMPUTER SOFTWARE

STRATEGY GAMES FOR THE ACTION-GAME PLAYER.



JOYSTIK CHARTS

JoyStik® has expanded its listing of high scores to let you know your standing in 101 of the best and brightest arcade games. To help keep the list up-to-date, send your high score to Twin Galaxies International Scoreboard: 226 E. Main St., Ottumwa, IA 52501. Please include signed verification of your score from the owner or manager of the arcade, the bonus and difficulty settings of the machine, and, if you wish, comments about the game.

Games	Player	High Score	Date	Arcade Location
Arabian	Mike Ziara	115,150	6/15/83	Golden Dome: Salisbury, MD
Armor Attack	Tom Larkin	2,009,000	no listing	Fantasia: Dayton, OH
Asteroids	Leo Daniels	40,101,910	2/6/82	Ocean View Corp.: Carolina Beach, NC
Asteroids Deluxe	Leo Daniels	2,269,230	5/3/82	Light Years Amusement: Wrightsville Beach, NC
Baby Pac-Man	Richard Sattilaro	6,685,130	3/6/83	Bruce Amusements: Edison, NJ
Bagman	Jerry McCloskey	6,840,850	8/2/83	Family Fun Center: Tenticton, British Columbia
Battlezone	Jack Haddad	21,851,000	5/5/83	Golfland USA: San Jose, CA
Berzerk	Ron Bailey	81,180	5/18/83	Time Out Arcade: Gastonia, NC
Boxing Bugs	Richard Lewis	2,026,222	no listing	Bun & Games: Janesville, WI
Bubbles	Steve Harris	871,520	8/4/83	Twin Galaxies Arcade: Ottumwa, IA
Buck Rogers	Bruce Borasato	731,030	5/19/83	Electric Pizazz: Trail, British Columbia
Bump-n-Jump	Mike Ternasky	1,971,000	5/25/83	Golfland USA: Milpitas, CA
BurgerTime	Darren Kenney	5,882,950	8/12/83	Bally's Great Escape: Lakewood, CA
Carnival	David Schooling	221,780	8/15/82	Plaza Bowl: Warrensburg, MO
Centipede	Rod Maddox	15,345,798	7/22/83	Abracadabra: Kokomo, IN
Congo Bongo	Steve Harris	379,580	7/23/83	Twin Galaxies Arcade: Ottumwa, IA
Dark Planet	Leo Daniels	133,000	11/7/82	The Hole: Ottumwa, IA
Defender	Burt Jennings	76,377,300	4/8/83	Outer Limits: Durham, NC
Dig Dug	Ted Akers	9,760,720	5/1/83	Video Games, Inc.: Shreveport, LA
Donkey Kong	Bill Mitchell	874,300	8/7/83	Twin Galaxies Arcade: Ottumwa, IA
Donkey Kong Jr.	Tim Williams	999,200	8/11/83	Mr. Bill's: Moscow, ID
Dragon's Lair	Steve Harris	454,974	7/3/83	NCK Pro Bowl: Kansas City, MO
Eliminator	Mark Rasmussen	50,800,500	1/22/83	Aladdin's Castle: Fort Dodge, IA
Eyes	Roogie Elliot	9,575,350	2/23/83	Fun Center: Caledonia, MI
Food Fight	Ken Okumura	16,725,700	7/16/83	Fun 'n' Games: Santa Maria, CA
Frenzy	Mark Smith	4,804,540	7/16/83	Putt Putt Golf & Games: Shelby, NC
Frogger	Mark Robichek	442,330	8/30/82	Phil's: Lakewood, CA
Front Line	John Bunlea	727,500	5/25/83	Putt Putt Golf & Games: Wilmington, NC
Galaga	Lloyd Dahling	22,222,630	8/7/83	Space Station: Anchorage, AK
Galaxian	Perry Rogers	389,770	5/12/83	John Brown University: Fayetteville, AR
Gorf	Jason Smith	2,220,000	2/13/83	Gold Mine: Midland, TX
Grand Champion	Craig Sucharda	137,410	no listing	Jensens Enterprises: Kenosha, WI
Gravitar	Raymond Mueller	4,722,200	12/4/82	Chuck E. Cheese Pizza: Boulder, CO
Gyruss	Tony Salisbury	4,067,000	7/31/83	Golden Dome: Salisbury, MD
Journey	Joe Maurizi	10,000,125	7/7/83	Games 'R Fun: Fort Smith, AR
Joust (new chip)	Christian Gingas	98,565,550	6/17/83	no listing
Joust (old chip)	Donnie Norris	201,452,600	4/14/83	Space Station: Wilmington, NC
Jungle King	Michael Torcello	1,510,220	5/83	Wegman's: East Rochester, NY
Kangaroo	David Kirk	921,800	3/13/83	Taco Nacho: Gainesville, FL
Kickman	Tom Bundy	4,787,665	12/27/82	Space Invader Video: Cleveland, OH
Liberator	Sean Middleton	3,016,010	5/25/83	Space Station: Anchorage, AK
Lock-n-Chase	Jeff Peiffer	62,060	5/20/83	Twin Galaxies Arcade: Ottumwa, IA
Looping	Chad Crouse	1,253,260	1/29/83	Video Champ: Des Moines, IA
Make Trax	Thomas Carver	2,123,840	7/6/83	Family Game Room: Garden City, MI
Mappy	Mark Bersabe	443,710	8/24/83	Golfland USA: Milpitas, CA
Millipede	Ben Gold	4,304,549	2/4/83	Pro Video Game Center: Dallas, TX
Missile Command	Victor Ali	69,739,020	1/21/83	Cinedome 7: San Francisco, CA

(Continued on page 62)

How to make sure you don't get 5 pairs of underwear for Christmas.


Fill in this checklist, tear it out and give it to your parents. Help them figure

out that this Christmas you'd like software and hardware. Not underwear.


☐ **Ms. Pac-Man**¹ 

☐ **Centipede**TM 


☐ **Phoenix**² 

☐ **Vanguard**² 

☐ **Jungle Hunt**³ 

☐ **Kangaroo**^{TM, 4} 

☐ **Dig Dug**⁵ 

☐ **Galaxian**⁶ 

☐ **Pole Position**⁷ 

☐ **Battlezone**TM 

☐ **Moon Patrol**⁸ 

☐ **ATARI 5200TM Super-System**

The world's most advanced video game system. Now with a \$30.00 rebate offer.*



☐ **ATARI 2600TM System**

The world's most popular video game system. Now with a \$30.00 rebate and a \$60.00 rebate coupon book.*



☐ **ATARI 5200 TRAK-BALLTM Controller**

For the real arcade touch. Plays more TRAK-BALLTM compatible games than anyone else.



☐ **ATARI VCSTM Cartridge Adapter**

Lets your 5200 play every game made for ATARI game systems.



☐ **ATARI TRAK-BALLTM Controller**

For real arcade action on the ATARI 2600TM System, Sears Video Arcade System and all ATARI Home Computers.



ATARI

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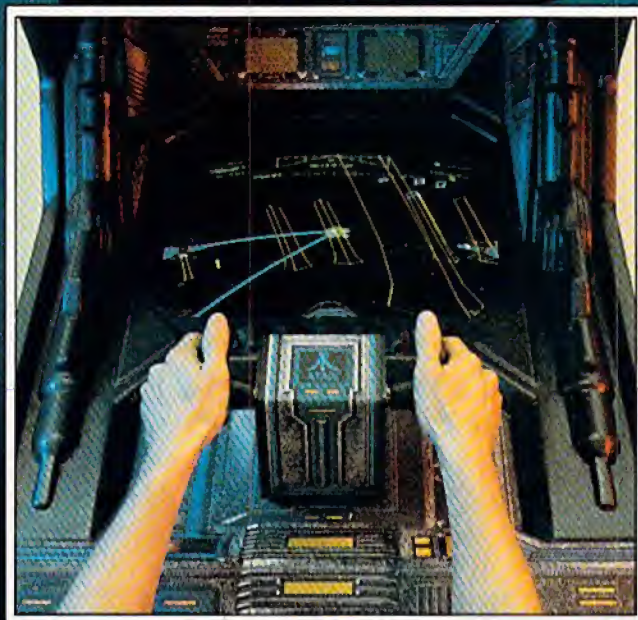
JOYSTIK CHARTS

(Continued from page 60)

Monaco GP	Robert Paquette	10,000	3/12/82	Star Castle: Smithfield, RI
Moon Patrol	Mark Robichek	1,214,600	3/11/83	Golfand USA: Mountainview, CA
Monster Bash	Bob Lynch	448,400	2/13/83	Bun & Games: Kenosha, WI
Mousetrap	Bill Bradham	61,366,060	7/24/83	Take Ten Corp.: Dublin, GA
Mr. Do!	John McKeever	2,535,850	5/14/83	Casino Amusement Center: Montreal, Quebec
Ms. Pac-Man	Tom Asaki	419,950	6/19/83	Twin Galaxies Arcade: Ottumwa, IA
Nibbler	Tom Asaki	838,322,160	5/27/83	Strand Union Rec Center: Bozeman, MT
Omega Race	David Brunow	2,809,750	3/28/83	Another Galaxy: McHenry, IL
Pac-Man	Les Martin	12,719,060	no listing	Golden Dome: Salisbury, MD
Pac-Man Plus	Shannon Ryan	3,213,900	8/12/83	Starship Video: Upland, CA
Pengo	Kevin Leisner	809,990	2/25/83	Mission Control: Racine, WI
Pepper II	Herbie Fong	10,642,030	12/12/82	no listing
Phoenix	Mark Gotfrind	987,620	3/7/83	Cloverleaf Mini Golf: North Miami Beach, FL
Pole Position(3 lap)	Mike Klug	53,250	no listing	Video Paradise: San Jose, CA
Pole Position (4 lap)	Les Lagier	66,760	8/23/83	Video Paradise: San Jose, CA
Pooyan	Rick Marsh	364,550	no listing	T.J.'s Arcade: Fort Dodge, IA
Popeye	Steve Harris	1,232,250	8/8/83	Twin Galaxies Arcade: Ottumwa, IA
Q*Bert	Divelle Dorris	24,790,950	7/12/83	Video Adventure: Lake Park, FL
Qix	Bill Camden	1,666,604	no listing	Galaxy I: Lynchberg, VA
Quantum	Jud Boone	1,029,160	2/27/83	Mr. Bill's: Moscow, ID
Reactor	Ed Flores	448,833	1/28/83	Fun & Games: Santa Maria, CA
Red Baron	Alan Jasperson	298,920	12/13/82	Empire Video: Olympia, WA
Rescue	Rey G. Flores	437,360	6/8/83	Stop-n-Go: Turtle Creek, TX
Rip Off	P. Sweeney/K. Potter	92,890	10/6/82	Cosmic Palace: Napa, CA
Robotron	Michael Dullard	287,211,050	4/25/83	Nickleodian: Des Moines, IA
Satan's Hollow	Aaron Samuel	43,086,300	8/5/83	Mr. Bill's: Moscow, ID
Scramble	John Norman	999,250	12/6/82	Light Years Amusement: Wrightsville Beach, NC
Sinistar	Steve Harris	468,670	5/26/83	Bob's IGA: Kansas City, MO
Space Duel	David Plummer	623,720	1/28/83	Midtown Amusements: Regina, Saskatchewan
Space Dungeon	Ron Lilly	10,505,915	7/26/83	Video Champ: Des Moines, IA
Space Fury	Loren Hawkinson	222,599	4/20/82	Fun 'n' Games: Hamilton, MT
Space Invaders	Ned Troide	210,000	8/1/82	Barrel of Fun: Clearwater, FL
Space Invaders Deluxe	Matt Brass	425,230	9/16/82	Modern West Bar: Helena, MT
Space Zap	Mike Jones	230,000	1/14/83	YMCA: Ottumwa, IA
Stargate	Roger Mangum	71,473,400	4/8/83	Outer Limits: Durham, NC
Star Trek	Gary Hatt	46,330,500	8/5/83	Starship Video: Upland, CA
Star Wars	John Frye	1,568,660	8/17/83	Odyssey Arcade: Madison, WI
Sub Roc 3-D	William Crowley	346,650	6/25/83	Fun 'n' Games: Santa Maria, CA
Super Cobra	Matt Brass	198,470	7/26/82	Godfather's Pizza: Helena, MT
Super Pac-Man	John Azzis	588,430	4/8/83	Fun 'n' Games: Santa Maria, CA
Super Zaxxon	Gary Hatt	201,700	5/15/83	Starship Video: Upland, CA
Tac Scan	Dileep Gupta	57,069,600	8/12/83	Bim's Place: Lloydminster, Alberta
Tempest	David Plummer	11,999,978	3/19/83	Midtown Amusements: Regina, Saskatchewan
Time Pilot	Bill Bradham	4,134,400	6/10/83	Take Ten: Dublin, GA
Tron	Robert Bonney	12,883,638	7/9/83	Wizard's Video Magic: Kirkland, WA
Tunnel Hunt	Chris Randall	821,330	2/24/83	Amusements Crossings: Charlotte, NC
Turbo	Mace Triesman	223,139	7/1/83	Funway Freeway: Voorhees, NJ
Tutankham	Mark Robichek	1,004,980	4/3/83	Golfand USA: Milpitas, CA
Wacko	Steve Harris	1,608,100	3/31/83	NCK Pro Bowl: Kansas City, MO
Wild Western	Richard Eldridge	803,900	no listing	Bim's Place: Lloydminster, Alberta
Zaxxon	Vernon Kalanikau	4,680,740	no listing	Chuck E. Cheese: Laie, HI
Xevious	Tim Williams	9,999,990	5/16/83	Mr. Bill's: Moscow, ID
Zookeeper	Brian Halik	9,920,000	8/14/83	Cloverleaf Miniature Golf: Miami, FL
ZZZZYXX	Chris Holland	96,030	2/7/83	Games Reserve: Charlotte, NC

NEW FROM ATARI
COIN VIDEO GAMES

ATARI® STAR WARS



DARTH VADER* beware! Get your hands on the action! Incredible graphic simulation, music and dialogue created from the movie, fantastic special effects you can't get at home... the STAR WARS game from Atari is a totally new age of coin video entertainment. Get into it where you play coin video games. Remember, THE FORCE* will be with you!

TECHNOCRACY



The Reads 2600.

READS MAY BE RIGHT

If you've got a great game idea that you'd like to turn into reality (and real money), then maybe the Reads 2600, by VSS Inc., will help you along the road to riches. This free-standing piece of hardware allows you to design VCS games by using the program development capabilities of your Atari 800 computer.

The unit connects to the computer through the joystick ports and to the VCS through the cartridge adaptor. Your game program, stored on a cassette or diskette, is downloaded to the Reads 2600 and executed by the VCS for viewing.

You can develop games in the industry standard of 4K bytes, or more sophisticated games in 8K bytes by using the bank selection mechanism in the unit. The software can then be programmed onto EPROMs and made into cartridges for your viewing or selling pleasure.

For \$795 you'll receive the complete Reads 2600 package. This includes instructions, 8K byte ROM emulator, Atari 800 connector cable, VCS cartridge adaptor with connector cable, and execu-

tion and discovery software.

One of the many available accessories is an 8K byte cartridge adaptor for development of Vic-20 games using the Reads 2600.

DIFFICULTY SETTINGS

If a dwindling supply of quarters doesn't curtail your video game play, then maybe the machine's difficulty setting will. Listed below are the settings which arcade owners can adjust on four currently popular video games.

Atari's Crystal Castles has three clear-cut levels of difficulty: easy, medium and hard. The machine can be set to give you three, four or five turns initially, and it has a yes/no option for bonuses. If the game is adjusted to award bonuses, you'll receive them every 70,000 points.

Gyruss, from Centuri, has five difficulty levels ranging from very easy to most difficult. The manufacturer sends the game out with a 4 setting, giving you three lives to start with and bonuses at 60,000 points and then every 80,000 points thereafter. But if the arcade owner is unusually generous, you can begin

with four or five lives, and receive bonuses at 50,000 and 120,000 points.

Mylstar's Krull has two levels of difficulty, normal and hard, with either a roving or stationary hexagon. You'll begin with three or five lives, and if Krull stays at the factory setting you'll earn bonuses at 30,000 and 80,000 points. Otherwise, bonuses are awarded every 30,000 points, at 40,000 and 90,000 points, or 50,000 and 125,000 points.

Bally/Midway's Mappy can be adjusted to take one of many paths. The manufacturer sets the difficulty at "A," the easiest level, but there are three other levels, "D" being the most difficult. You'll start with either one, two, three or five turns, but the point gap between bonus turns is, as always, beyond your control. Your first bonus Mappy can appear at 20,000 or 30,000 points, and the second is awarded when you reach 60,000 to 100,000 points.



CVC's Master Module.

MASTER MODULE

The man who founded The Source, an information and videotex system for personal computers, has taken the first step towards turning video game consoles into terminals acces-

sing large computers. With the introduction of the Master Module, a unit plugging into the game console in place of a cartridge, William von Meister of Control Video Corporation (CVC) is offering nationwide network capabilities to the 12 million households who already own a video game system.

The company's GameLine service links Atari 2600 owners with a computerized library of video games. In addition to playing games, the user can preview new games before purchase. The system is interactive and lets the user send and receive information from the central computer. This means players can compete across the country.

Once a selection is made, the Master Module dials its memory-stored local telephone number, and connects with the central computer. The program requested, be it the game software or the latest sports scores, is fed back over the telephone line into the module. The telephone call generally lasts less than a minute. After the Master Module disconnects from the telephone, the game or text is stored in the module's memory and appears on the screen.

GameLine is the only service now available via the Master Module. The company plans to offer a variety of other features including electronic mail, sports news and scores, stock market quotes, commodity prices and financial news, and information sharing.

DISCS OF TRON



ENTER THE ENVIRONMENT



"GREETINGS, MASTER CONTROL PROGRAM HAS CHOSEN YOU TO SERVE ON THE GAME GRID."

With this command comes the ultimate challenge. You will be head to head with the awesome adversary—Sark. Enter the environment. Step onto the rings. Experience the dimensions of a computer arena.

"WE'LL GET YOU...IT'S ONLY A MATTER OF TIME."



NOW YOU CAN GET INTO POLE POSITION* AT HOME.

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